Author’s response to reviews

Title: Emergency medical dispatch services across Pan-Asian countries: A web-based survey

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Author’s response to reviews:

The responses have been enclosed in a Supplementary File that has been uploaded. Additionally, I have copied & pasted the contents below.

Shawn Chieh Loong LEE
UNSW Medicine
Drs Guangde Tu & Richard Neville Bradley,

We thank you for considering our manuscript, “EMMD-D-19-00197: Emergency medical dispatch services across Pan-Asian countries: A web-based survey” for publication in BMC Emergency Medicine.

We would also like to thank the reviewers for their comments and feedback. We have enclosed our responses to their feedback below and incorporated changes to the manuscript where necessary.

We would also like to thank the Editorial Office for proposing the formatting changes. The proposed change has been made to the Figure Legend, and the revised Figure Legend now reads:

Figure Legend

Figure 1: Map of Respondents' Sites. The map was created using ArcGIS - ArcMap v10.0 (Esri, California, United States of America).

Please address all correspondence concerning this manuscript to me at me@shawnlcl.com. We hope that the manuscript will be accepted by the Journal for publication.

Sincerely,

Shawn Chieh Loong LEE
Reviewer 1 (Jeff Clawson)

1. Is the abbreviations page a BMC's style? It makes the paper read like a chapter book.

Response: The list of abbreviations has been edited to better suit the BMC style, and has been moved just after the Conclusion in compliance with the Journal’s manuscript style.

2. DISCUSSIONS: 1st para, line #20 - instead of the words "...medical background...", consider using "...public safety..."

Response: The term "...medical background..." was amended to “healthcare providers” instead of “public safety background”, to match the International Liaison Committee on Resuscitation (ILCOR) Consensus on Science with Treatment Recommendations (CoSTR) draft document on Dispatcher instruction in CPR (1) that notes that the “impact of dispatcher or call-taker’s background (non-healthcare professional versus paramedic or nurse)” on dispatch-assisted CPR (DACPR) has not been studied.

The amended paragraph now reads;

“Our study demonstrated many similarities and some variations in DS characteristics. Most PAROS DS’s operated tiered response systems and were protocol-driven. Medical oversight was a clear feature in most DS’s and dispatchers predominantly had a medical backgroundwere predominantly healthcare providers, comprising EMTs (Emergency Medical Technicians), paramedics and nurses. DS’s were tracking quality indicators for general EMS as well as DACPR domains.”

Bolded portions have been added in the revised manuscript, while struck through portions have been removed.

3. Authors didn't discuss implications of some of the results e.g., DS configurations (vertical vs horizontal), Urbanization, script source, dispatch system, highest level of response, etc...is there any lesson readers can deduce from these?

Response: The intent of the study was to provide a framework and understanding on the characteristics of the various DS’s and their DACPR and Quality Improvement (QI) implementation. This will enable future studies to look at how these differences affect outcomes as we now know what outcome measures are currently being measured. There future studies can then provide more lessons for readers.
Additionally, you may be pleased to note that the script source was addressed in the Discussion section, and has also been bolstered,

“In light of the complex multilingual environments, the preference for internally-developed scripts may be due to the need for phrasing to be simple enough to translate on-the-fly (22). Future DACPR scripts should therefore strive to utilize simple, unambiguous and easy-to-translate language to facilitate this, in the absence of DACPR scripts in the local language.”

Bolded portions have been added in the revised manuscript.

Reviewer 2 (Hidetada Fukushima)

1. This survey was conducted from 2017 to 2019. The report from Tainan, however, is 2013. I understand that it usually takes almost two years to obtain annual statistics so that data from 2015 or 2016 is plausible. Please provide comment on this in the Table.

Response: While efforts were made to obtain more recent data, the most recent statistics available for Tainan were from 2013 due to site constraints.

Tables 1 and 5 have had the following footnote added:

“‡ Data was only available from 2013 due to site constraints”

2. In Results, L13, the values of 95% CI should be around 32.0.

Response: The 95% CI values have been corrected.

3. In Discussion, P2L16, right after the reference (17), unnecessary sentence is left in the paragraph.

Response: The sentence has been removed.

4. In Discussion, P3L2 and L17, authors refer to the multilingual aspects of Asian nations. Some nations, however, are monolingual nations. Please consider providing information regarding languages spoken in each country.
Response: We agree with your comment that some countries are monolingual. However, providing information regarding languages spoken in each country would take up excessive space and be a difficult endeavour, with some countries like Malaysia having 134 living languages (2). For clarity’s sake, we have amended the paragraph (Discussion P3)

“The increase in number of DS’s that have implemented DACPR compared to 2012 may also be attributed to Phase 2 of the PAROS study (19). This study involved the introduction of a bundle of care to the participating PAROS dispatch services that included the implementation of a DACPR protocol and training program. Notably, in multilingual Asia, where many countries are multilingual, DACPR needs to should be available in more than one language as language barriers are known to delay recognition of OHCA and initiation of DACPR (20), and increase dispatch times (21). Unfortunately, this increases the staffing requirement in an already resource-limited region. In light of the potential complex multilingual environments, the preference for internally-developed scripts may be due to the need for phrasing to be simple enough to translate on-the-fly (22). Future DACPR scripts should therefore strive to utilize simple, unambiguous and easy-to-translate language to facilitate this, in the absence of DACPR scripts in the local language.”

Bolded portions have been added in the revised manuscript, while struck through portions have been removed.