

Date: Aug 22, 2022

To: BPG Editorial Office <editorialoffice@wjgnet.com>

From: " Dongfeng Pan " 13895101226@139.com

Subject: About the revision of "Video-assisted Bystander Cardiopulmonary Resuscitation Improves the Quality of Chest compression during Simulated Cardiac Arrests: A Systemic Review and Meta-Analysis" (Manuscript ID: 78310)

Dear editors and Reviewers:

We thank you for your comments. These comments are valuable for us to improve the manuscript to reach the level of publication in *World Journal of Clinical Cases*. According to these comments, we have revised the manuscript again. We have addressed all the issues raised by editor as follows:

**Response to the comments from Reviewer #1:**

**Comment**

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

**Conclusion:** Accept (General priority)

**Specific Comments to Authors:** The authors describe a meta-analysis and review of video-assisted bystander CPR on the quality of chest compression during CPR. The study demonstrated some important findings. For one, it suggests that video assisted bystander CPR can improve chest compression rates. However, no significant effects

on depth of chest compression or correct hand positioning was demonstrated; this can be related to various factors as appropriately acknowledged by the authors. Further studies in real world setting may provide more definitive data on the research question posed by the authors; video assisted bystander CPR is a tool with potential to improve outcomes in out-of-hospital cardiac arrests. The authors have done good work in describing the elements of the study well.

**Response:** Special thanks to your good comments.

#### **Response to the comments from Reviewer 2#:**

##### **Comment**

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Accept (General priority)

**Specific Comments to Authors:** I found the manuscript interesting and well shaped.

**Response:** Special thanks to your good comments and language polishing recommendations. For language polishing requirements, we have sent revised manuscript to a professional English language editing company to polish the manuscript further.

#### **Response to the comments from Reviewer 3#:**

##### **Comment**

**Scientific Quality:** Grade C (Good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Major revision

**Specific Comments to Authors:** I read with interest the article "Video-assisted Bystander Cardiopulmonary Resuscitation Improves the Quality of Chest Compressions during Simulated Cardiac Arrests: A Systemic Review and Meta-Analysis". Out of a potential 256, a small number of studies were included in the analysis, only 6 of them. The main objection to the authors is that only the qualities of chest compression were analyzed. In addition, it would be significantly more significant if the outcome of CPR was analyzed in the form of the establishment of circulation and heart rhythm, as well as patient survival.

**Response:** As Reviewer suggested that It is important to analyze the establishment of circulation and heart rhythm, as well as patient survival in CPR, however, the main objective of this study is to summarize the quality of chest compression and time-related quality parameters of video-assisted bystander cardiopulmonary resuscitation. These studies are simulation-based and implement in a standardized cardiac arrest scenario consisting of a mannequin, so it is unable to observe the establishment of circulation and heart rhythm, and patient survival.

**Response to the comments from Reviewer 4#:**

**Scientific Quality:** Grade C (Good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Minor revision

**Specific Comments to Authors:** The authors have performed a meta analysis of randomized studies comparing video assisted CPR to telephone assisted CPR in out of hospital cardiac arrest patients (simulated by mannequin) with young volunteers playing the role of first responders. They included 6 such studies and assessed CPR quality (such as: compression rate, number of subjects who performed adequate compression rate, compression depth, number of subjects who performed adequate compression depth and position of hands) and time related quality metrics (such as: time to initiate compressions and total hand off time). The authors demonstrated that by using video assisted CPR there was a significant increase or improvement in compression rate but there was no difference in compression depth or hand position or time related quality metrics. Hence the authors conclude that based on their meta analysis there was an improvement in compression rate with video assisted CPR compared to telephone assisted CPR.

**Comment 1:** The tables and figures were not included in the manuscript file, so I could not review any of them.

**Response 1:** We are very sorry for our negligence of the miss tables and figures at the first submission of the manuscript. We have supplemented the tables and figures into the main text immediately after receiving the remind from the reviewer.

**Comments 2:** Would be good to include a table of the studies included in this analysis, number of subjects, main end points studied and main findings of each of these studies.

**Response 2:** Thank the suggestion of reviewer. Number of subjects, main end points studied and main findings of each of these studies were included in Table 1 . The basic characteristics of included studies.

**Comments 3:** Include a table of all the outcomes analyzed in this study for ease of the reader.

**Response 3:** Thank the suggestion of reviewer. Due to our negligence, the first submission of the manuscript did not include the tables and figures, we have supplemented the tables and figures into the main text immediately after receiving the remind from the reviewer.

**Comments 4:** In the introduction section - the mean survival rate of OHCA is 7.6%, seems really low. Is it survival to hospital discharge with intact Neuro function? Need to clarify this.

**Response 4:** We appreciate it very much for this good suggestion. According to your ideas, we have clarify it as "the aggregate survival rate of hospital discharge of adult patients with cardiac arrest(OHCA) of presumed cardiac etiology for whom resuscitation was only 7.6%,"

**Comments 5:** Last paragraph of introduction section: quantitative studies or qualitative studies?

**Response 5:** Thank you to the reviewers. We have reconfirmed the relevant literature and identified it as a quantitative study.

**Comments 6:** How was the depth of compression assessed in these studies? Need to clarify this.

**Response 6:** According to this good suggestion, we again consulted the literature to clarify it as “the depth of compression as between 5 and 6 cm”.

**Comments 7:** In the discussion section, need more information on studies demonstrating efficacy of video assisted CPR.

**Response 7:** We appreciate it very much for this good suggestion, we added more information on studies demonstrating efficacy of video assisted CPR as “Video instructions through a telephone can be a potentially powerful tool for CPR instruction in emergencies. Previous studies have shown that DA-CPR with video instructions improved rescuers’ self-reported confidence, which could positively affect the number of bystanders willing to start CPR(30). Meanwhile, Video-calls influenced the information basis and understanding of the dispatchers so that improve rescuer compliance(17).”

**Comments 8:** Discussion section, in included some studies the correct hand position

of the participants ..... - what does this mean? Need more clarity. Are they quoting previous studies if so need reference.

**Response 8:** Thank you for this good suggestion. According to your ideas, we have added the interpretation of the correct position of the participants in the discussion section as” According to the American Heart Association and European Resuscitation Council guidelines as the correct hand position on the lower half of the sternum”. Also, the relevant references are quoted. Meanwhile, in the inclusion and exclusion criteria section section, we also defined the concept of the correct hand position as”on the lower half of the sternum”.

**Comments 9:** Mention all the limitation in a separate section labeled limitations.

**Response 9:** In the final paragraph of the discussion section of the text, we illustrate the four-point limitations of the literature included, including study design, study subjects, and statistical methods. We believe that these limitations include all the limitations within our cognitive range.