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.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Changing patterns of emergency paediatric presentations during the first wave of COVID-19: Learning for the second wave from a UK tertiary emergency department.
AUTHORS	Shanmugavadivel, Dhurgshaarna Liu, Jo-Fen Gilhooley, Colin Elsaadany, Loai Wood, Damian

VERSION 1 – REVIEW

REVIEWER	Reviewer name: Dr. Conrad Kabali Institution and Country: 2264 Spence Lane, Burlington, Ontario, L7L6L3, Canada Competing interests: None
REVIEW RETURNED	03-Dec-2020

GENERAL COMMENTS	This is an important research topic. The manuscript is clearly written. I have few comments. Page 6, line 8: When the authors compared the proportions of emergency pediatric presentations in the pre-lockdown versus the lockdown period, it was unclear if the proportions were assumed to be derived from a sample or a population. Take for instance the lockdown phase. If the proportions were treated as fixed values (i.e. derived from a population) then the standard errors in this phase (from which the p-values are obtained) should equate to 0 (no sampling variability). But if assumed to come from a random sample (of either a finite or super population) then the standard errors will normally be greater than 0. In the Discussion the authors were careful not to infer their findings beyond the study centre and the 1st lockdown (rightly so), which means that, the proportions computed in the lockdown phase should be regarded as fixed values (with 0 standard error) rather than samples. This needs clarification. Page 6, line 10: Since the Bonferroni correction was used, the cut-off point for the p-value should vary depending on the number of comparisons (can't stay at 0.05). It is the family-wise error rate that remains fixed at 0.05. Please revise your statement. Pages 17-20: Captions for the figures are missing. Page 19, Figure (d): The reported p-values for the comparisons W1-3 vs W4-6 will be inaccurate (and irrelevant when accurate) if we cannot infer beyond this centre or the stated period. This is related to my previous comment on a sample versus population.

VERSION 1 – AUTHOR RESPONSE

Responses to reviewer

Comment:
Page 6, line 8: When the authors compared the proportions of emergency pediatric presentations in the pre-lockdown versus the lockdown period, it was unclear if the proportions were assumed to be derived from a sample or a population. Take for instance the lockdown phase. If the proportions were treated as fixed values (i.e. derived from a population) then the standard errors in this phase (from which the p-values are obtained) should equate to 0 (no sampling variability). But if assumed to come from a random sample (of either a finite or super population) then the standard errors will normally be greater than 0. In the Discussion the authors were careful not to infer their findings beyond the study centre and the 1st lockdown (rightly so), which means that, the proportions computed in the lockdown phase should be regarded as fixed values (with 0 standard error) rather than samples. This needs clarification.

Response:
Our centre is the tertiary Major Trauma Centre for the East Midlands and also the fourth largest acute teaching trust in the UK, providing services to approximately 2.5 million people within the East Midlands. We take the view that patients studied in our project is a sample of a wider population.

We have included a sentence in methods section to clarify this.

Comment:
Page 6, line 10: Since the Bonferroni correction was used, the cut-off point for the p-value should vary depending on the number of comparisons (can't stay at 0.05). It is the family-wise error rate that remains fixed at 0.05. Please revise your statement.

Response:
We have revised the sentence and included Bonferroni adjusted p-value (unadjusted p-values in each pairwise test multiplied by the total number of pairwise tests) before the statement that $p<0.05$ was deemed statistically significant in all analyses.

Comment:
Pages 17-20: Captions for the figures are missing.

Response:
We followed the instructions to authors and included figure legends in the main text and submitted the figures separately. We believe this will be mended at typesetting.

Comment:
Page 19, Figure (d): The reported p-values for the comparisons W1-3 vs W4-6 will be inaccurate (and irrelevant when accurate) if we cannot infer beyond this centre or the stated period. This is related to my previous comment on a sample versus population.

Response:
We have now defined in the manuscript that this this study is as a sample of a wider population.

We would like to thank the reviewer for his valuable comments.