

## Correspondence



## OPEN ACCESS

**Received:** Feb 23, 2020

**Accepted:** Mar 1, 2020

### Address for Correspondence:

**Akbar Shoukat Ali, BSN, MSBE**

School of Public Health, Dow University of Health Sciences, Ojha Campus, Karachi, Pakistan, Department of Medicine, The Aga Khan University, Stadium Road, Karachi, Pakistan.

E-mail: akber.shoukat.ali@gmail.com

© 2020 The Korean Academy of Medical Sciences.

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ORCID iDs

Akbar Shoukat Ali

<https://orcid.org/0000-0002-3654-6051>

Raheel Allana

<https://orcid.org/0000-0001-7547-8154>

Rahim Jandani

<https://orcid.org/0000-0001-7876-3399>

### Disclosure

The authors have no potential conflicts of interest to disclose.

### Author Contributions

Conceptualization: Ali AS, Allana R, Jandani R. Resources: Ali AS. Supervision: Ali AS. Validation: Ali AS, Allana R, Jandani R. Writing - original draft: Ali AS, Allana R, Jandani R. Writing - review & editing: Ali AS, Allana R, Jandani R.

# Letter to the Editor: Pediatric Injuries in Kids Cafés and Risk Factors for Significant Injuries: a 6-Year Cross-Sectional Study Using a Multicenter Injury Registry in Korea

**Akbar Shoukat Ali ,<sup>1,2</sup> Raheel Allana ,<sup>1,2</sup> and Rahim Jandani** <sup>3</sup>

<sup>1</sup>School of Public Health, Dow University of Health Sciences, Ojha Campus, Karachi, Pakistan

<sup>2</sup>Department of Medicine, The Aga Khan University, Karachi, Pakistan

<sup>3</sup>Institute of Nursing, Dow University of Health Sciences, Ojha Campus, Karachi, Pakistan

► See the article “Pediatric Injuries in Kids Cafes and Risk Factors for Significant Injuries: a 6-Year Cross-Sectional Study Using a Multicenter Injury Registry in Korea” in volume 35, number 6, e37.

Of late, we had the opportunity to read, with great attentiveness, the original article titled, “Pediatric Injuries in Kids Cafés and Risk Factors for Significant Injuries: a 6-Year Cross-Sectional Study Using a Multicenter Injury Registry in Korea.”<sup>1</sup> The primary objective of the study was to identify the risk factors associated with significant pediatric injuries in kids cafés. Indeed, the authors have explored the area of pediatric accidental injury on which scientific literature is sparse and we would like to commend the authors for their successful effort to fill the grey area. However, we had reservations regarding the interpretation of one of the significant statistical findings of the published study and subsequent recommendations thereafter.

The authors appropriately utilized the concept of odds ratio (OR) given the cross-sectional study design of the research study; however, the statistical interpretation in Discussion and recommendations in the Conclusion section are not in line with the only significant adjusted OR and confidence interval (CI) finding observed for rock climbing equipment mentioned in **Table 3**. We know that CI is a statistical measure that helps to estimate conclusions for the underlying population. They are affected by sample size and also highlight the precision of the observations; the narrower the CI of a sample statistic, the more precise the estimate for the underlying population.<sup>2</sup>

In the first paragraph of Discussion, the authors mentioned that “Multivariable logistic regression analysis indicated that the rock climbing equipment was the only risk factor for significant kids café-related injuries. This result will be helpful in establishing preventive measures such as safety guidelines or educational programs for the safety of children in kids cafés.” Perhaps, this was reported in the context of the very high adjusted OR finding of 14.94. Obviously, there is no overlapping 1, but if you look meticulously, the CI is very wide (1.51-147.72) which indicates that the inferences drawn for the population based on this finding might be less precise. We are also aware of the fact that small sample size results in wider CI<sup>3</sup> and that is the case in the present study; only 5 observations were included for rock climbing equipment.

Finally, the Conclusion section strongly suggested that “rock climbing equipment is especially risky for significant injuries in kids cafés. Our study suggests that further injury prevention strategies are warranted. Strict safety standards should be applied when installing play equipment that can cause high-energy damage, especially rock climbing equipment”. Here, the authors have made a very strong point for rock climbing equipment being the most unsafe equipment and the only associated factor with pediatric injury on grounds of a statistical finding obtained through merely 5 observations of rock climbing equipment related injury. We believe that the authors should have clearly suggested in the Discussion for readers to interpret the findings vigilantly based on the small number of observations.

We strongly recommend that OR interpretation must be prudently done keeping in view the CI. Similarly, statistical interpretation and the sentence choice during manuscript write-up go hand in hand and should be wisely executed. We humbly expect a reply from the authors of the published article in order to get maximum understanding of this significant health issue.

Thanks.

## REFERENCES

1. Choi IC, Park JW, Jung JY, Kim DK, Kwak YH, Suh D, et al. Pediatric injuries in kids cafés and risk factors for significant injuries: a 6-year cross-sectional study using a multicenter injury registry in Korea. *J Korean Med Sci* 2020;35(6):e37.  
[PUBMED](#) | [CROSSREF](#)
2. Hazra A. Using the confidence interval confidently. *J Thorac Dis* 2017;9(10):4125-30.  
[PUBMED](#) | [CROSSREF](#)

J Korean Med Sci. 2020 Apr 27;35(16):e147  
<https://doi.org/10.3346/jkms.2020.35.e147>  
© 2020 The Korean Academy of Medical Sciences.



# The Author's Response: Pediatric Injuries in Kids Cafés and Risk Factors for Significant Injuries: a 6-Year Cross-Sectional Study Using a Multicenter Injury Registry in Korea

Ik Chang Choi ,<sup>1</sup> Joong Wan Park ,<sup>1</sup> Jae Yun Jung ,<sup>1</sup> Do Kyun Kim ,<sup>1</sup>  
Young Ho Kwak ,<sup>1</sup> Dongbum Suh ,<sup>2</sup> and Se Uk Lee ,<sup>3</sup>

<sup>1</sup>Department of Emergency Medicine, Seoul National University Hospital, Seoul, Korea

<sup>2</sup>Department of Emergency Medicine, Seoul National University Bundang Hospital, Seongnam, Korea

<sup>3</sup>Department of Emergency Medicine, Samsung Medical Center, Seoul, Korea

**Received:** Mar 23, 2020  
**Accepted:** Mar 24, 2020

**Address for Correspondence:****Joong Wan Park, MD**

Department of Emergency Medicine, Seoul National University Hospital, 101 Daehak-ro, Jongno-gu, Seoul 03080, Korea.  
E-mail: zzibii@naver.com

**ORCID iDs**

Ik Chang Choi  <https://orcid.org/0000-0002-9632-2404>  
Joong Wan Park  <https://orcid.org/0000-0002-9702-170X>  
Jae Yun Jung  <https://orcid.org/0000-0003-2994-6900>  
Do Kyun Kim  <https://orcid.org/0000-0002-6144-302X>  
Young Ho Kwak  <https://orcid.org/0000-0003-2062-7575>  
Dongbum Suh  <https://orcid.org/0000-0002-2449-1006>  
Se Uk Lee  <https://orcid.org/0000-0003-4201-2272>

**Disclosure**

The authors have no potential conflicts of interest to disclose.

On behalf of myself and my co-authors, we appreciate Dr. Ali for his interest in our article and important comments on our article's interpretation. In this study, rock climbing equipment was the only statistically significant risk factor for significant kids café-related injuries as a result of multivariable logistic regression. Because the confidence interval (CI) does not contain the null of 1.0, rock climbing equipment is a statistically significant factor by definition. However, the CI was very wide (aOR, 14.94; 95% CI, 1.51–147.72). In other words, we are 95% confident that the true population OR is between 1.51 and 147.72. The width of the interval implies the amount of variability in the estimate and is a reflection of the sample size from which the estimate was drawn. In principle, the larger the sample size, the less variability and the narrower the CI, leading to a more precise estimate. Conversely, with smaller sample sizes, the CI is generally wider, indicative of a more variable and less precise estimate.<sup>1</sup> In this study, we concluded that rock climbing equipment is risky for significant injuries in kids cafés based on the results of statistical analysis. We agree with Dr. Ali's opinion that OR interpretation must be prudently made keeping in view the CI. In this study, small sample size leads to the wide CI and a less precise estimate. We did not conclude that rock climbing equipment is about 15 fold riskier than the reference factor because this is a less precise estimate because of the small sample size. However, we could conclude that rock climbing equipment is risky for significant injuries in kids cafés because the CI did not contain the null value. Further studies with a larger sample size may be needed to support our conclusion and make a meaningful clinical inference.

**REFERENCES**

1. Laing CM, Rankin JA. Odds ratios and confidence intervals: a review for the pediatric oncology clinician. *J Pediatr Oncol Nurs* 2011;28(6):363–367.

[PUBMED](#) | [CROSSREF](#)