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OPEN PEER REVIEW

Factors Related to Dehydration in Children Admitted to the Emergency Department: A Cross-Sectional Study

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About this report

This open peer review (OPR) report shows the public comments made on this article during peer review, by the reviewers, the associate editor and the editor-in-chief, for every revision round, together with the authors' replies. Comments appear only with the consent of the people who wrote them. Reviewers who chose to sign their report are named; the others are shown as "Referee". Comments are edited for language only, and confidential remarks to the editors are not included.

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1 Original submission

1 comment · 14 Dec 2024

Referee 1 Reviewer

MAJOR REVISION 14 Dec 2024

Dear authors
Dehydration in children is a significant issue in Iran and several other countries.
The introduction and methods sections of your manuscript require major revisions, which are detailed in a separate file.
Regards

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Revision 1

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

Dear editor,

The following text provides a point-by-point response to the esteemed reviewer's valuable comments.

1. **Title and Abstract**
    - **Question:** Indicate the study's design with a commonly used term in the title or the abstract.
    - **Peer Review:** The study design is clearly indicated as a "cross-sectional study" in the title.
    - **Response:** As the honorable reviewer said, the study design was specified in the title.
2. **Abstract**
    - **Question:** Provide in the abstract an informative and balanced summary of what was done and what was found.
    - **Peer Review:** The abstract provides a summary of the objectives, methods, results, and conclusions, making it informative and balanced.
    - **Response:** As mentioned by the honorable reviewer, the abstract provides a summary of the objectives, methods, results and conclusions.
3. **Introduction**
    - **Question:** Explain the scientific background and rationale for the investigation being reported.
    - **Peer Review:** The background highlights dehydration as a significant cause of mortality in children and the need to understand associated risk factors.
    - **Response:** As mentioned by the honorable reviewer, the background highlights dehydration as a significant cause of mortality in children and the need to understand associated risk factors.

4. **Objectives**
    - **Question:** State specific objectives including any prespecified hypotheses.
    - **Peer Review:** The objective is clearly stated as investigating factors related to dehydration in children admitted to the emergency department.
    - **Response:** As mentioned by the honorable reviewer, the objective is clearly stated as investigating factors related to dehydration in the children who were studied.
5. **Methods - Study Design**
    - **Question:** Present key elements of study design early in the paper.
    - **Peer Review:** The study design is mentioned as cross-sectional in the methods section.
    - **Response:** Yes, the study design is mentioned as cross-sectional in the methods section.

6. **Methods - Setting**
    - **Question:** Describe the setting, locations, and relevant dates including periods of recruitment, exposure, follow-up, and data collection.
    - **Peer Review:** The setting is described as the emergency department of a hospital in the northern region, with data collection from May 1 to September 15, 2023.
    - **Response:** As mentioned by the honorable reviewer, the setting is described as the emergency department of a hospital in the northern region, with data collection from May 1 to September 15, 2023.

7. **Methods - Eligibility Criteria**
    - **Question:** Give the eligibility criteria and the sources and methods of selection of participants.
    - **Peer Review:** Eligibility criteria include children under 18 with moderate to severe dehydration. The source of data is the patients' medical records.
    - **Response:** Eligibility criteria and other mentioned items were explained.
8. **Methods - Data Sources/Measurement**
    - **Question:** For each variable of interest, give sources of data and details of methods of assessment (measurement).
    - **Peer Review:** Data were gathered using a three-part questionnaire covering demographic characteristics, basic factors, and associated clinical symptoms.
    - **Response:** As mentioned by the honorable reviewer, data were gathered using a three-part questionnaire covering demographic characteristics, basic factors, and associated clinical symptoms.
9. **Methods - Bias**
    - **Question:** Describe any efforts to address potential sources of bias.
    - **Peer Review:** The abstract does not explicitly mention efforts to address potential sources of bias.
    - **Response:** Considering the nature of the study, collecting data through the information available in the patients' records, it is not indicated to mention possible biases in this study.
10. **Methods - Study Size**
    - **Question:** Explain how the study size was arrived at.
    - **Peer Review:** The abstract does not provide details on how the study size was determined.
    - Response: Since the sampling was a census, the term (Census sampling(was added to the relevant section.
11. **Methods - Statistical Methods**
    - **Question:** Describe all statistical methods including those used to control for confounding.
    - **Peer Review:** Statistical analysis was performed using Stata 17 software with a significance level of $P < 0.05$, but specific methods to control for confounding are not detailed.
    - **Response:** At the end of the method section, explanations related to the control of confounding factors were given: The effect of the main independent variables was ultimately evaluated using the Stepwise-backward method, with confounders controlled, and adjusted odds ratios reported.
12. **Results - Participants**
    - **Question:** Report numbers of individuals at each stage of study.
    - **Peer Review:** The abstract provides percentages of participants with specific symptoms and behaviors but does not report the total number of participants.
    - Response: It is corrected.

13. **Results - Descriptive Data**
    - **Question:** Give characteristics of study participants and information on exposures and potential confounders.
    - **Peer Review:** The abstract provides detailed descriptive data on symptoms and parental awareness of ORS treatment.
    - **Response:** As mentioned by the honorable reviewer, characteristics of study participants and information about exposures and... were explained.
14. **Results - Main Results**

- **Question:** Give unadjusted estimates and if applicable confounder-adjusted estimates and their precision.
- **Peer Review:** The abstract provides odds ratios and confidence intervals for certain risk factors but does not specify if these are adjusted for confounders.
- **Response:** Thanks, We checked the final regression models, and in certain instance, all potential confounding variables were eliminated following the backward elimination procedure. Consequently, if we aim to present both adjusted and unadjusted models, the coherence of the tables may be adversely affected. Additionally, the unadjusted estimates are not suitable for decision-making purposes.

15. **Discussion - Key Results**
    - **Question:** Summarise key results with reference to study objectives.
    - **Peer Review:** The key results are summarized, indicating late emergency department visits and associated risk factors for dehydration.
    - **Response:** As mentioned by the honorable reviewer, the key results are summarized, indicating late emergency department visits and associated risk factors for dehydration.

16. **Discussion - Limitations**
    - **Question:** Discuss limitations of the study taking into account sources of potential bias or imprecision.
    - **Peer Review:** The abstract does not discuss limitations of the study.
    - Response: The study limitations section was added.
17. **Discussion - Interpretation**
    - **Question:** Give a cautious overall interpretation considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence.
    - **Peer Review:** The conclusion suggests preventive educational interventions but does not discuss limitations or compare with similar studies.
    - Response: This was a descriptive study that investigated several risk factors associated with dehydration in children. Therefore, the results were discussed one by one and compared with similar studies
18. **Discussion - Generalisability**
    - **Question:** Discuss the generalisability (external validity) of the study results.
    - **Peer Review:** The abstract does not discuss the generalisability of the study results.
    - **Response:** It is corrected (in conclusion).
19. **Other Information - Funding**
    - **Question:** Give the source of funding and the role of the funders for the present study.
    - **Peer Review:** The abstract does not mention funding sources.
    - **Response:** As stated in the funding section of the manuscript: **Funding/ Support:** We did not receive any funding to carry out this study.

Categorization of Comments

Major Comments:

- Lack of discussion on potential sources of bias and study limitations.

- Absence of details on how the study size was determined.
- No mention of funding sources or generalisability of the results.

Minor Comments:

- The abstract could benefit from specifying whether the odds ratios provided are adjusted for confounders.
- Consider including a discussion on how the findings compare with similar studies.

2 Revision 1

0 comments

No public comments in this round.

3

Revision 2

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

22-Jan-2025
Dear Dr. Bagheri-Nesami
Editor Journal of Nursing and Midwifery Sciences (JNMS)

Thank you for reviewing our article entitled "Factors related to dehydration in children admitted to the emergency department: a cross-sectional study" with Submission ID 158116.

I tried to modify your suggested points in the review of our manuscript as below and mark them with red color.

Sincerely,
Ali Zabihi
Corresponding author

Q1. Under18 is not considered a child and this definition is not suitable for the child's age.

Repy1. According to reliable references, the definition of a children refers to individuals under 18 years of age.

Lucas GN. ‘Child’,‘adolescent’and ‘youth’: Definitions. Sri Lanka Journal of Child Health. 2023 Jun 5;52 (2).

Nelson SP, Kothari S, Wu EQ, Beaulieu N, McHale JM, Dabbous OH. Pediatric gastroesophageal reflux disease and acid-related conditions: trends in incidence of diagnosis and acid suppression therapy. Journal of medical economics. 2009 Dec 1;12 (4):348-55.

Q2. Please write the keywords based on mesh.

Reply2. It is corrected.

Q3. Why does this research have no statistics from our country, Iran?

Reply3. Another study in Iran conducted in 2020 that reported types of dehydration in children was added.

Q4. In the introduction, there is not enough reference to domestic studies, and also, there is not enough controversy to carry out this project

Reply4. Many other studies have been done in Iran regarding the complications of dehydration in children, including electrolyte disorders, which did not report the factors related to dehydration. Two cases of studies conducted in Iran regarding the prevalence and complications of dehydration in children were mentioned (Reference 7 and 8).

Q5. Please explain the scientific background and rationale for the investigation being reported.

Reply5. In the final part of the background was added as follows. Considering the high prevalence of dehydration and the risks associated with it, as well as the risk of mortality and costs imposed on the health care system and families, it is necessary to investigate the causes and develop preventive strategies. Amirkola Children's Hospital in Babol, Iran, experiences a high number of dehydration-related emergency visits. Limited studies have been conducted on dehydration factors in Iranian children, emphasizing the need for further research in this area.

Additionally, factors contributing to dehydration in children may vary across countries and regions due to differences in cultural, economic conditions, and healthcare facilities.

Q6. Under18 is not considered a child and this definition is not suitable for the child's age.

Please explain your reason about this or revise the writing this section.

Reply6. According to reliable references, the definition of children refers to individuals under18 years of age.

Lucas GN. ‘Child’,‘adolescent’and ‘youth’: Definitions. Sri Lanka Journal of Child Health. 2023 Jun 5;52(2).

Nelson SP, Kothari S, Wu EQ, Beaulieu N, McHale JM, Dabbous OH. Pediatric gastroesophageal reflux disease and acid-related conditions: trends in incidence of diagnosis and acid suppression therapy. Journal of medical economics. 2009 Dec 1;12(4):348-55.

Q7. Please explain the number of samples available in the study setting and during the time period that the study was conducted. Were all individuals willing to

participate? If not, please describe why and how many individuals did not participate in the study. Thank you

Reply7. Since most of the data was obtained from the medical records of the patients, there was no attrition of samples and all the patients referred to the emergency department were included in the study.

Q8. Please briefly explain about the study setting.

Reply8. Added more details.

Q9. Please cite a valid reference for selecting and including these factors. Reference number three is not written in the references section.

Reply9. Reference 3 was corrected.

Q10. Please cite a valid reference for selecting and including these factors.

Reply10. According to the opinion of the respected reviwer, the relevant reference was added.

Q11. It seems no valid questionnaire was used. Please explain about the reliability and validity of the questionnaires.

Reply11. Then it was given to ten members of the pediatric nursing faculty and pediatricians, and it was checked and approved. Since this questionnaire assess factors related to dehydration without the use of a score, reliability testing is not necessary in this case.

Q12. Please address the ethical considerations section in a separate subheading and explain about it.

Reply12. A separate subheading of ethical considerations was added at the end of the method section.

Q13. Please write the reference based on the journal format.

Reply13. References were reviewed based on the journal format.

Q14. Please add reference 3.

Reply14. It is corrected.

3 Revision 2

0 comments

No public comments in this round.

4

Revision 3

AUTHORS' RESPONSE TO REVIEWERS

Authors' reply to reviewers

The next pages contain the authors' point-by-point reply to the comments of this revision round, as submitted with the revised manuscript. It is published as the authors wrote it.

04-Feb-2025
Dear Dr. Bagheri-Nesami
Editor Journal of Nursing and Midwifery Sciences (JNMS)

Thank you for reviewing our article entitled "Factors related to dehydration in children admitted to the emergency department: a cross-sectional study" with Submission ID 158116.

I tried to modify your suggested points in the review of our manuscript as below and mark them with red color.

Sincerely,
Ali Zabihi
Corresponding author

Q1. If possible, please add the time and location (for example, in Iran).

Repy1. It is corrected.

Q2. Thank you for providing the statistics and responding to the previous comment, but please note the following:

Please include statistics related to the world and our country in one paragraph.

You mentioned statistics in the world, and in this section, statistics in other regions, such as our country. Please maintain the coherence of the content.

Reply2. It is corrected.

Q3. Thank you for the additional explanation, but please write the research gap based on evidence and literature, and if possible, write the necessity of this study more clearly.

Reply3. The necessity of conducting the study was further explained by adding references.

Q4. It is necessary to explain more about the study setting.

Reply4. Description added.

Q5. You mentioned the sampling method. But how it was done was not explained. For example, how many people visited these sampling location during the sampling period and how many were eligible? Of these people, were they all willing to participate in the research? If not everyone was willing to participate in the study, what were the reasons for non-participation? .... Who did the sampling and explanations like this...

Reply5. It was explained at the end of the data collection section.

Q6. In your response letter to the reviewers, you mentioned below reference, but you did not include it here.

Lucas GN. ‘Child’,‘adolescent’and ‘youth’: Definitions. Sri Lanka Journal of Child Health. 2023 Jun 5;52(2). Please explain your reason about this or revise the writing this section.

Reply6. This reference was added to the text.

Q7. The expanded form of all abbreviations in the table should be written at the bottom of the table.

Reply7. It is corrected.

Q8. The expanded form of all abbreviations in the table should be written at the bottom of the table.

Reply8. It is corrected.

4 Revision 3

0 comments

No public comments in this round.