Journal of Comprehensive Pediatrics
Volume 14 · Issue 2 · e132383

OPEN PEER REVIEW

The Prevalence of Sleep Disorders Among Children with Chronic Functional Constipation, a Study in Arak, Iran

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SUBMITTED	REVISED	ACCEPTED	DOI
14 Oct 2022	1 Feb 2023	9 Feb 2023	10.5812/compreped-132383

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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Contents

1 **Original submission** Referee 1, Referee 2, Associate Editor, Editor-in-Chief 2
2 **Revision 1** Associate Editor, Editor-in-Chief 4
Authors' reply to reviewers 5
Reviewer and editor comments 8
3 **Revision 2** Associate Editor 9
Authors' reply to reviewers 10
Reviewer and editor comments 13

1 Original submission

4 comments · 23 Oct 2022 – 7 Nov 2022

Referee 1 Reviewer

MINOR REVISION 23 Oct 2022

Thank you for presenting this manuscript. This manuscript was well structured, but I have a few questions:

COMMENTS FOR AUTHORS:
Abstract:
Line 38, "7.36 (1.6)" change to "7.36 ± 1.6".
Briefly describe the statistical methods.
Clearly note the prevalence of sleep disorders in each sex.
Move lines 46-47 to the results section.
Background:
This section was good and organized.
"Rome criteria" change to "Rome criteria IV".
"2.1 to 1" change to "1 to 2.1".
Methods:
What were your sampling methods?
The global prevalence of FC is higher in girls. Please explain why most of your participants were boys.
Line 95, "unwillingness of patient to participate or continue participation in the study," was not an exclusion criterion. This is loss to follow-up or non-enrollment of participants. Please delete it.
Inclusion and exclusion criteria must be mentioned in the first paragraph, followed by a clear description of the eligible and allocated participants, with exact numbers.
Was there any loss to follow-up?
The Children's Sleep Habits Questionnaire (CSHQ) needs a reference.
Results:
This section was good.
"7.36 (1.6)" change to "7.36 ± 1.6".
Please explain why most of your participants were boys.
Please explain "Resistance to sleep" and "Delayed sleeping" clearly and briefly.
According to table 2, it seems that Delayed sleeping was the least common sleep dysfunction, not sleep apnea. Please explain and correct this in the main text and abstract.
Discussion:
In the discussion, you should first present the main finding(s), especially their novelty, and then refer to other studies.
Limitations and recommendations were not provided. Limitations and recommendations should be mentioned in the last paragraph of the discussion, and any gap, question, hypothesis, or comment should be stated in the last paragraph without using a separate subheading.
Thank you

Referee 2 Reviewer

MAJOR REVISION 4 Nov 2022

I appreciate the efforts made by the authors in conducting this interesting
study. I hope my suggestions will be helpful to the authors.
1. Please explain the selection or nonselection of the control group.

2. Please clarify the process of estimating the reliability and validity of the questionnaire mentioned in your study. As far as I know, this is an international questionnaire that needs to be translated into Farsi for Iranian participants.

Associate Editor

MAJOR REVISION 7 Nov 2022

Dear EIC,
The manuscript needs revision.

Editor-in-Chief

MAJOR REVISION 7 Nov 2022

Dear Author,
Please revise your manuscript and reply to the reviewers' comments one by one.

2

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.

- **Manuscript ID:** 132383
- **Manuscript Title:** The prevalence of sleep disorders among children with chronic functional constipation, a study in Arak, Iran

The wanted changes in the manuscript has been highlighted with yellow color and language changes has been highlighted with blue color.

Reviewer 1:
I appreciate the efforts that have been done by the authors in conducting this interesting study. I hope my suggestions to be helpful for authors.
1. Please explain about selecting or non sellecting the control group.

We appreciate the comments. This study was a descriptive study and has been run without control group which has been mentioned in limitation section

2. Please clarify the process of estimating the reliability and validity of the mentioned questionnaire used in your study. As I know this is an international questionnaire that needs translation into Farsi for Iranian participants.

Thanks for the insightful comment. This section was added to the manuscript:

This tool has been standardized in an Iranian people, it's validity was evaluated through content validity and its reliability was evaluated using Cronbach's alpha coefficient (α=0.81) and test retest reliability (r=0.98)(15).

Reviewer 2:
Thank you for presenting this manuscript. This manuscript was well structured, But I have a few questions:

COMMENTS FOR AUTHORS:
Abstract:
- Line 38, "7.36 (1.6)" change to "7.36 ± 1.6".

Thanks for the suggestion. It was changed.

- Statistical methods express briefly.

We appreciate the comments. It was added.

- The prevalence of sleep disorders in each sex notes, clearly.

We appreciate the comments. It was added.

- Lines 46-47 move to results section.

Thanks for the insightful comment.it was done.

Background:
This section was good and organized.
- “Rome criteria” change to “Rome criteria IV”.

Thanks for the comment.it was done.

- “2.1 to 1” change to “1 to 2.1”.

Thanks for the insightful comment.it was done.

Methods:
- What were your sampling methods?

We appreciate the comments. It was added.

- The global prevalence of FC in girls is more in the world. Pl explains why most of your participants were boys?!

Thanks for the insightful comment. But our sampling method was convenience method and it wasn’t stratified based on gender or other variables. however due to the high prevalence of outcome among patients the sample size of girls also could have a sufficient power to detect the outcome.

- Line 95, “unwillingness of patient to participate or continue participation in the study,” was not exclusion criteria. This is loss of follow up or un-enrollment of participants. Pl deletes it.

Thanks for the insightful comment.it was done.

- Inclusions and exclusions criteria must be mention to first paragraph then after, eligibility and allocated participants were noted (with number, exact and clearly).

We appreciate the reviewer’s comment. It was changed.

- Did you loss of follow up?

No, we didn’t have.

- The Children’s Sleep Habits Questionnaire (CSHQ) needs reference.

We much appreciate the reviewer’s careful review. It was added.

Results:
This section was good.
- “7.36 (1.6)” change to “7.36 ± 1.6”.

Thank you, it was changed

- Pl explains why most of your participants were boys?

Thanks for the insightful comment. It was explained above.

- Pl explains “Resistance to sleep” and “Delayed sleeping”, clearly and briefly.

We appreciate the comment. Resistance to sleep is included: Falls asleep in other’s bed, needs parent in room to sleep, struggles at bedtime and afraid of sleeping alone. And Delayed sleeping is difficulty falling asleep.

-According to table 2, it seems that Delayed sleeping was least sleep dysfunction, not sleep apnea. Pl explains and corrects it (in main text and abstract).

We appreciate the insightful comment of respected reviewer. There was an error in table which was corrected and main text and abstract were correct.

Discussion:
- In the discussion part you should write the main(s) finding(s) and specially (novelty) at first and then allude to other studies.

We appreciate the comments. It was done

- Limitation and recommendation were not seen. Limitation and recommendation should be mentioned in the last paragraph of discussion and in last paragraph any gap, question, hypothesis or comment should be declared (not utilize separate subheading).

We appreciate the comments. It was added.

Thank you

2 Revision 1

2 comments · 16 Jan 2023 – 16 Jan 2023

Associate Editor

MINOR REVISION 16 Jan 2023

Dear EIC,
The manuscript still needs revision.

Editor-in-Chief

MINOR REVISION 16 Jan 2023

Dear Author,
The manuscript still has some errors. Please revise it based on the comments.

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.

> Reviewers' Comments:

Reviewer 1:
Thanks a lot for resending me this review.
The required changes performed by authors in detail. As a descriptive study it is suitable for publication.

Thank you for your valuable comments in improving our manuscript.

Reviewer 2:
Comments to the Author:
The great effort in improving the manuscript is highly appreciated. However, there are rooms for further improvement which the authors should consider. The following points are of concern and minor suggestions are marked in the following.
1- In first paragraph of background, it is suggested that other cause of FC in boys such as external genitalia abnormalities and micropenis should be expressed in more detail and one or more sentences must be noted about this issue. For example, you note: [Nowadays, another issues that cause psychological problems in boys are concealed or buried penis and micropenis. It may be concern the parents and children and also causes FC and anxiety, decreased self-steam and sexual dysfunction in the future]. You should be mentioned to these valuable and new articles in your references: [1- Is It Necessary to Weight Loss in Obese Boys with Small Penile Length? A Case-Control Study, J Compr Ped. 2020; 11(4):e107272. doi: 10.5812/compreped.107272.
2- Which of the Anthropometric Parameters and Hormonal Variables in Prepubertal Children Are Correlated to True Micropenis?, Iran J Pediatr. 2021; 31(1):e108534. doi: 10.5812/ijp.108534.]

With respect to the comment of the respected reviewer, after the discussion with the authors of the manuscript, the opinion of the authors was that although there may be some indirect correlations between these topics, but because a direct relationship has not been reported between micropenis and constipation in the articles, it is better this issue should not be mentioned

2- In line 92, willingness of patient to participate was not inclusion criteria. Pl deletes it.

Thank you for the reviewer comment, it was deleted.

3- Pl explains “Resistance to sleep” and “Delayed sleeping”, clearly and briefly in text with valuable references. pl add your comments in main text.

Thanks for the insightful comment. They were defined in main text, and the definition of “Resistance to sleep” was referenced. but “Delayed sleeping” was not defined in the articles due to the clarity of its meaning so wasn’t referenced.

4- In line 129-130, you said “The most and the least common sleep disorders in this study were sleep resistance and sleep apnea, respectively”. However, according to table 2, it seems that Delayed sleeping was least sleep dysfunction, not sleep apnea. Pl explains and corrects it (in main text and abstract). it was not correct in abstract and text, yet.

Thanks for the insightful comment. The range of different domains is not the same, therefor to compare them, they should be standardized. For this purpose, a weighted mean was taken and the comparisons were made based on that, as shown in the last column of the table. And based on that the most and the least common sleep disorders in this study were sleep resistance and sleep apnea.

5- The global prevalence of FC in girls is more in the world. Pl explains why most of your participants were boys?! Your description was not convincing to me. Why the frequency of FC was less than boys in your clinics? Pl explains it in more detail in discussion section, precise and clearly.

Thanks for your insightful comment. But the purpose of our study is not to estimate the prevalence of FC, so that this issue can’t affect the results of the study, and as we told before, our sampling method was convenience method and it wasn’t stratified based on gender or other variables and everyone who visited the clinic was invited to study. Furthermore there are also many studies that have reported a lower prevalence in girls(1-5) and even some systematic reviews (6, 7) that has reported more prevalence of FC in boys. Also there is another study(8),that it’s results has been reported by different age groups in such a way that FC was much more in boys in the age groups under 11 years, but it was reported more in girls in the age group of 12 years; and due to this issue that in our study, most of the participants were in the age group of 5 – 8, it can explain this issue.

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2. Dehghani SM, Ehsaei Z, Honar N, Javaherizadeh H. Frequency of celiac disease in children with chronic functional constipation in Shiraz-Iran. Middle East journal of digestive diseases. 2015;7:166.
3. Kavehmanesh Z, Saburi A, Maavaiyan A. Comparison of body mass index on children with functional constipation and healthy controls. Journal of family medicine and primary care. 2013;2(3):222.
4. Yousefi A, Mohamadian S, Sharifabadi PM, Nakhaei S, Norouzi E. How does functional constipation affect growth status in children? Iranian Journal of Pediatrics. 2019;29(2).
5. Van den Berg M, Van Rossum C, De Lorijn F, Reitsma J, Di Lorenzo C, Benninga M. Functional constipation in infants: a follow-up study. The Journal of pediatrics. 2005;147(5):700-4.

6. Pijpers MA, Bongers ME, Benninga MA, Berger MY. Functional constipation in children: a systematic review on prognosis and predictive factors. Journal of pediatric gastroenterology and nutrition. 2010;50(3):256-68.
7. Vriesman MH, Rajindrajith S, Koppen IJ, van Etten-Jamaludin FS, van Dijk M, Devanarayana NM, et al. Quality of life in children with functional constipation: a systematic review and meta-analysis. The Journal of pediatrics. 2019;214:141-50.
8. Udoh EE, Rajindrajith S, Devanarayana NM, Benninga MA. Prevalence and risk factors for functional constipation in adolescent Nigerians. Archives of Disease in Childhood. 2017;102(9):841-4.

3 Revision 2

1 comment · 9 Feb 2023

Associate Editor

ACCEPT 9 Feb 2023

Dear EIC,
The manuscript has been revised successfully. It can be published now.