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OPEN PEER REVIEW

The Validity and Reliability of Early Feeding Skills Assessment and Cue-Based Feeding Scales for Preterm Infants

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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

4 comments · 17 Nov 2020 – 3 Dec 2020

Referee 1 Reviewer

MINOR REVISION 17 Nov 2020

Dear AE,
Regarding the review of the article, there are a few comments for the authors:
- Firstly, the article has a suitable title and a structured abstract. However, the keywords need to be corrected according to the main goal of the study and using MeSH.
In the Introduction section, the sentence "Additionally, regarding the lack of comprehensive feeding assessment scales for infants in Iran, the study aimed to measure the validity and reliability of the EFS and cue-based feeding scales" needs more attention and explanation in light of available studies such as:
Bahrami B, Marofi M, Farajzadegan Z, Barekatain B. Validation of the Early Feeding Skills Assessment Scale for the Evaluation of Oral Feeding in Premature Infants. Iranian Journal of Neonatology. 2019 Jun: 10(2). DOI: 10.22038/ijn.2018.32322.1451
- So, what is the novelty of and necessity for performing such a study?
- The sample size calculation is not provided, and according to previous research, it seems that a sample of 30 infants for a validity and reliability study is not reasonable or sufficient.
- The results section has been described properly. However, the results are repeated more than usual in the discussion, which suggests that the authors tended to simply extend this part. More comparisons with other studies should be considered to reach a justified and strong conclusion.
- Overall, the text has some typographical errors that are correctable, but I think the main manuscript has been translated from a Persian version into English and that some parts have not been professionally translated.
Thanks.

Referee 2 Reviewer

MAJOR REVISION 29 Nov 2020

Dear AE,
Comments for the authors:
Validity and Reliability of the Early Feeding Skills Assessment and Cue-based Feeding Scales
Introduction:
1- This part of the manuscript does not explain the reason for choosing these two scales to test their psychometric properties. There is a need to explain which tools are the most applicable worldwide and why we prefer to apply these two instruments.
2- There is a need to explain the risks of choosing inappropriate tools to decide when to start oral feeding in preterm infants, as well as the global prevalence and consequences of errors in discharging preterm infants from the NICU; …
Materials & Methods:
1- In line 108, I think it should read "the infant is not ready for feeding".
2- To assess construct validity, the researcher(s) tested the correlation between the two tools mentioned, but it seems that there is a need to apply a third tool to assess the convergent validity of the two main tools.
3- I suppose that to assess the construct validity of an instrument, convergent and discriminant validity must be assessed at the same time, and convergent validity alone is not enough.
4- I think there is a need to know how the minimum sample size was calculated in this study.
Results:

1- Lines 153-154 are almost a repetition of the data in table 1. We need more details in the table or in the text.
2 – As you know, gestational age is normally defined using weeks and days; using 223 days to show the mean gestational age is not appropriate.
3 – In table 1, using Mean & SD is not applicable to all records, such as participants' gender.
Discussion:
1-Lines 181-188 are not usually included in the discussion section.
2-In lines 222-226, the reverse correlation between EFS and Cue-based Feeding Scale is not a new finding and was predictable because one of these two instruments uses reverse scoring and the other does not.
2- I believe that in this study, the type of infant feeding is not acceptable as an inevitable limitation; it seems to be an important confounder (lines 234-236).
Thanks.

Associate Editor

MAJOR REVISION 3 Dec 2020

Dear EIC,
The manuscript has been reviewed, and there are some comments that should be addressed by the author. Based on these comments, the document needs major revision.
Kind regards,

Editor-in-Chief

MAJOR REVISION 3 Dec 2020

Dear Authors,
According to the reviewers' and associate editor's comments, your manuscript needs major revision. Please respond to the reviewers' and associate editor's comments separately and also highlight the required revisions in the manuscript.
Thanks.

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.

Comments	Answer
This part of the manuscript does not support the reason for choosing these two scales to test their psychometric properties. There is a need to explain what are the most applicable tools, which are used in the world; and why we prefer to apply these, two instruments.	- The most applicable tools have been illustrated in page 2, line 54-70 - Reason of using these scales has been explained in page 4, line 88-95 - Early Feeding Skill Assessment (EFS) and cue-based feeding are only scales which evaluate infants`oral feeding readiness before feeding and feeding tolerance, and feeding quality during infants`feeding.Regarding one of the most important feeding method over world is cue-based feeding and since recently this method is used in Iran, validated scales of this method is required and there is no study in Iran in order to investigate concurrently both the EFS and the cue-based feeding scales.
There is a need to explain the risks of choosing inappropriate tool to make decision to start oral feeding in preterm infants; what are the global prevalence and consequences of making mistake in discharging preterm infants from NICU; ….	- Thanks for your attention - Risks of choosing inappropriate tool have been illustrated in page 2, line 47-53 - Page 2, lines 38-40 and lines 48-54
In the line 108, I think, “the infant is not ready for feeding”.	- Thanks for your point - It has been edited
For assessing the construct validity, the researcher(s) tested the correlation between the two mentioned tools; but it seems that there is a need to apply a third tool to assess the convergent validity in two main tools.	- Two scales which are used in our study investigate a common aim, which is the assessment of infants`oral feeding skills. By doing so, a third tool is not necessary.
3- I suppose that to assess the construct validity of an instrument, convergent and discriminant validity must be done at the same time; and convergent validity is not enough.	- Thanks for your guide - We added discriminant validity in Table 5 and page 1, lines 24-26 Page 6, lines 150-162 Page 8, 218-227
4- I think there is a need to know the way of calculating minimum sample size in this study.	- Thanks for your suggestion - It has elaborated in page 4, lines 116-118.
The lines 153-154 are almost the repetition of the data in table 1. We need more details in table or in the text.	- More details have been added in table 1, page 13 and page 6, lines 183-186.
As you know, Gestational Age normally defined by using weeks and days; using 223 days to show the gestational age mean, is not appropriate.	- The majority of similar studies has reported by using week - We changed from day to week
– In table 1, using Mean & SD is not applicable for all records; such as participants’ gender.	- Thanks your comment - We edited in table 1, page 13
Lines 181-188 are not usually entered in the discussion part	- It has been removed
In lines 222-226, the reverse correlation between EFS and Cue-based Feeding Scale is not a new finding; and has been predictable; because in one of these two instruments there is a reverse scoring; and in the other one, not.	- Thanks for your attention - It has been removed
I believe that in this study, the type of infant feeding is not acceptable as an inevitable limitation; it seems to be an important confounder (lines 234-236).	- Thanks for your comment - That limitation has been removed. - Type of milk was not confounder since we test EFS and cue-based feeding scores in three

Comments	Answer
	groups (bottle feeding, breast feeding and bottle and breast feeding) using ANOVA. P-value was more than 0.05,showing that this variable is not confounder. - Number of bottle feeding and breast feeding have been reported in Table 1
Firstly, the article has a suitable title and a structured abstract. However, keywords need to be corrected according to the main goal of study and using MeSH.	- It has been edited according to MeSH - Page 2, lines 30-31
In Introduction section the sentence "Additionally, regarding the lack of comprehensive feeding assessment scales for infants in Iran, the study aimed to measure the validity and reliability of the EFS and cue-based feeding scales" needs more attention and explanation according to the available studies like Bahrami B, Marofi M, Farajzadegan Z, Barekatain B. Validation of the Early Feeding Skills Assessment Scale for the Evaluation of Oral Feeding in Premature Infants. Iranian Journal of Neonatology. 2019 Jun: 10(2). DOI: 10.22038/ijn.2018.32322.1451 So, what is the novelty and necessity for performing such study?	- The study performed by Bahrami et al only has investigated EFS while our research has been tested EFS and cue-besed feeding scales. - Methods used by our study and bahrami`s study are different; in bahrami`s study, to reliability, internal consistency and to structural validity, factor analysis method. However, in our study, inter- rater and intra-rater reliability and convergent validity has been investigated (to measure reliability Intraclass Correlation Coefficients (ICC), Weighted Kappa were used and Spearman and pearson`s correlation coefficient were used to test convergent and known-group validity). - Page 3 and 4, lines 88-96
Sample size calculation is not provided and according to the previous research, it seems that 30 infants for performing a validity and reliability study is not logical and sufficient.	It has been added in page 4, lines 117-119.
Results section has been described properly.	There are a few study in this area and
However, it is repeated more than normal in discussion which seems that authors tented to just extend this part. More comparisons with other studies should be considered to reach a justified and strong conclusion.	we tries to compare with existing studies and removed repeated results.
Overall, the text has some typographical errors which are correctable but I think the main manuscript has been translated from Persian version to English that in some parts it does not have a professional translation.	It has been edited
Reviewer 3:	
1) Proper Article TITLE? no The title is not clear, on which group and whose nutrition does it focus? What do you mean? Start feeding or discharge from the hospital	We add "preterm infants" to title
2) Does the title reflect the content appropriately? no Two questioners are mentioned in the title, and subscale is mentioned in the last three lines of the abstract. Finally, the opinion is on the content of the questionnaire according to the method of work or clinical evaluation	We measure scales to clinically assess infants .
4) Importance and originality or the subject? (Is	Page 1. Lines 6-7

Comments	Answer
the information, or the interpretation of the information, new?) No, the reason for comparing the two is not clear in the abstract	
3) Is there any abbreviation in the TITLE? no	
5) Proper Authors' names and institutional affiliations? yes	
6) Source(s) of support in the form of grants, equipment, drugs, or all of these? no	
Abstract	
7) Is there structured ABSTRACT?	
8) How many words are there in the ABSTRACT (Count = 250-350)?260	
12) Does INTRODUCTION include: "What we know", "What we don't know" and "Aims"?	
9) Accurateness and adequacy of the ABSTRACT? (Does the abstract describe the content accurately?) no it is not clear in the last 3 sentences (important part)	It has been edited. Page 1, lines 27-31
10) Are KEYWORDS (3-10) selected form MESH (http://www.nlm.nih.gov/mesh/MBrowser.html) ? Ambiguity in the title makes it a bit difficult, but it seems to have been chosen appropriately.	Page 2, line 31. It has been edited based on MESH
11) Clarity of the objectives/hypotheses? (Are the objectives clearly stated?)	We need a common language among observers. Since both EFS and cue-
It was a big question for me why we should have a checklist for content validation that needs to be translated into Persian. The explanation does not specify why he chose these two.	based feeding have common aims , which readiness and quality of feeding. Page 3,lines 64-70 And
It is said that it has not been done in Iran. Not convincing?	Page 3, lines 87-97
Materials And Methods	13. since this study is not
13) Clearly describe selection of participants (patients or laboratory animals, including controls)? Convenient sampling and in a referral hospital could mean selection bias and dropout of infant with poor condition	interventional, randomization is not necessary and in methodological studies, convenient sampling is enough. 15. It has been added in page 4, lines
14) Study Design Described Sufficiently?	117-119. In Bahrami`s study, to test
moderately	internal consistency 30 infants have
15) Adequacy of the sample studied? Yes based on my knowledge minimum 10 is acceptable for content validity but this sample size is very smaller than similar research in Iran (25) and other countries for clinical validation	been enlisted in their study. 16.Preterm infants aged of less than 34 week 17. It has been added in page 4, lines
16) Subjects Representative of Target Population?	117-119 25. In Iran, we had just Bahrami`s
I do not know the answer to this part conclusively, but due to the fact that the hospital is a referral and it is Iranian study (reference number 25), the answer is probably negative.	study. In other country, there is 3 studies (refrence 12,14,20)
17) Provided sample size calculation or justification? No	
18) Control Subjects Appropriate? It is not	

Comments	Answer
controlled	
19) Power of study declared? Yes	
20) Reported actual P values for primary analyses? Yes	
21) Blinding of Investigators (if possible)? Yes	
22) Blinding of subjects (if possible)? -	
23) Identify the methods, apparatus (give the manufacturer's name and address in parentheses)? Yes	
24) Identify procedures in sufficient detail to allow other workers to reproduce the results? YES	
25) Give references to established methods and brief descriptions for methods that have been published but are not well known? No there is only one reference from our country and overall no reference for such a title	
26) Describe new or substantially modified methods, give reasons for using them, and evaluate their limitations? No it is not obvious why they perform content validity and it was mixed with clinical validity and as for feeding a good criteria is the length of hospital stay and rate of re-admission as the most important indexes	
27) Identify precisely all drugs and chemicals used, including generic name(s), dose(s), and route(s) of administration?-	
28) Inclusion/Exclusion Criteria Explained? Yes but it is not adequate	
29) Appropriate Statistical Analysis? yes	
30) Identified all statistical methods unambiguously? yes	
31) Explain Ethical Considerations? -	
Review Articles	
32) Authors submitting review manuscripts should include a section describing the methods used for locating, selecting, extracting, and synthesizing data?	
Case Report	
33) Proper writing of principles and elements of Medical History?	
34) Indicating of Paraclinic examination?	
35) Is there any Image, figures and tables for Case presentation?	
36) Consideration of medical ethics for case presentation? (Are there any special ethical concerns arising from the use of human or other animal subjects?)	
Results	37. We did not have attrition in this
37) Accuracy of the interpretation of RESULTS? Yes, but inadequate. rate of drop out and causes should be included	study.

Comments	Answer
38) RESULTS recorded appropriately? In hurry and not concise	
39) Appropriateness, clarity, and adequacy of the TABLES AND FIGURES? yes	
40) Present results in logical sequence in the text, tables, and illustrations, giving the main or most important findings? yes	
41) Repeat the data in the tables and Text? no	
42) Emphasize or summarize only important observations? yes	
43) Any Appendix for extra or supplementary materials and technical detail?-	
44) Restrict tables and figures to those needed to explain the argument of the paper and to assess its support? yes	
45) Use graphs as an alternative to tables with many entries?-	
46) Duplicate data in graphs and tables? no	
47) Use technical terms as non-technical in statistics, such as “random” (which implies a randomizing device), “normal,” “significant,” “correlations,” and “sample.”? No	
Discussion	50. it has been edited in conclusion
48) Relevance of the DISCUSSION section?	Page 1, lines 27-31
49) CONCLUSIONS justified & substantiated?	Page 10, lines 284-288
50) What CONCLUSIONS would you draw from these results? The two Translated questionnaire are not correlated and vice versa in some scale and therefore we should use another ques!!!!	
51) Analysis supports CONCLUSIONS? yes	
52) Are the conclusions supported by the discussion? no	
References	
53) Appropriateness of the REFERENCES? They are not similar or near title in references	
54) Proper Writing of the REFERENCES? Yes	
55) References for the last 5 years? Last 20 years	
56) Which type of writing is observed for references (Vancouver, Harward, Oxford, etc.)?	
57) Indicate references in parentheses? yes	
General Review	
58) Proper Style for Medical Writing?	
59) Define unique terms and acronyms the first time used? No for subscale of cue –based did not mentioned	
60) Proper English Grammar and Writing? okay	
61) Which sections are too long? -	
62) Which sections are too short? Material and methods and results are too short	
63) Which sections of this manuscript could be	

Comments	Answer
misunderstood? Introduction and conclusion	
64) Describe the three major weaknesses of this paper: no clear introduction and very short results and abrupt conclusion	
65) What additional information would you need to reproduce this study? More precise sample size, length of hospital stay and re-admission, causes of drop out, better inclusion and exclusion criteria	
66) Your Final Conclusion is: , Major Revision	

[Translated from Persian by the Brieflands editorial office.]

2 Revision 1

4 comments · 25 Jan 2021 – 26 Jan 2021

Referee 1 Reviewer

ACCEPT 25 Jan 2021

Dear AE,
Regarding the review of the article, there are a few comments for the authors:
- The manuscript has been corrected according to the reviewer's comments. It seems that there is no plagiarism in the manuscript and that all parts are written correctly.
- The study design and participants have been explained properly, and the sample size calculation has been added in the revised version. The Methods section, including the development of the Persian version of the scales, has been clarified very well. However, the methods used to control for confounding factors and potential sources of bias could be explained further.
- In line 183, "Result" should be corrected to "Results".
- Descriptive data and main results are described in a detailed, organized manner, which is suitable. The discussion has been expanded very well, and I think it covers all required items, such as a summary of the key results and their interpretation. In describing the study limitations, the authors only pointed to a small sample size, while it is the nature of this research that restricted the population to preterm infants, so in my opinion, it cannot be considered a limitation. If possible, please mention other limitations.
- The references seem to need an update. Among the 27 references, the lack of more recent papers (2020) on this topic makes the manuscript out of date. Except for 2 or 3 references from 2019, all citations date to before 2018.
- Reference number 22 is a private page (not an academic source). I think it is better to use a valid source for the sample size calculation.
- The manuscript's English is acceptable.
My decision about this manuscript is "accept with minor revised".
Thanks.

Referee 2 Reviewer

ACCEPT 26 Jan 2021

Dear AE,
My comments have been addressed properly. Thanks.
Thanks.

Associate Editor

MINOR REVISION 26 Jan 2021

Dear EIC,
Regarding the review of the article, there are a few comments:
- The manuscript has been corrected according to the reviewer's comments. All parts are written correctly.
- The study design and participants have been explained properly, and the sample size calculation has been added in the revised version. Aspects of the Methods section, such as the development of the Persian version of the scales, have been clarified very well; however, the methods used to control for confounding factors and potential sources of bias could be explained further.
- In line 183, Result should be corrected to "Results".
- Descriptive data and main results are described in a detailed, organized manner, which is suitable. - The

discussion part has been extended very well, and I think it covers all required items, such as a summary of key results and their interpretation. In describing study limitations, the authors pointed only to a small sample size, while it is the nature of this research that restricted the population to preterm infants, so in my opinion, it cannot be considered a limitation. If possible, please mention other limitations.
- The references seem to need an update. Among the 27 references, the lack of more recent papers (2020) on this topic makes the manuscript out of date. Except for 2 or 3 references from 2019, all citations date back to before 2018.
- Reference number 22 is a private page (not an academic page). I think it is better to use a valid source for the sample size calculation.
- The manuscript's English writing is acceptable.
Thanks.

Editor-in-Chief MINOR REVISION 26 Jan 2021

Dear Authors,
According to the reviewers' and associate reviewer's comments, your article needs minor revision.
Thanks.

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.

In the passage, green highlights are indicator new revisions.

Methods section such as developing Persian version of the scales clarified very well however, methods used to control for confounding factor and potential bias sources can be more explained.	It has been illustrated in line 110-113
In line 183 Result should be corrected to "Results".	It has been corrected
In describing study limitations, the authors just pointed to small sample size, while it is the identity of this research which restricted the population to preterm infants, so in my opinion it cannot be considered as a limitation. If it is possible, please mention other restrictions.	It has been added in lines 290-291
Reference seems to need an update. From 27 references, lack of more recently papers (2020) in this topic, makes the manuscript out of date. Except for 2 or 3 2019references, all citation returns to before 2018. Reference number 22, is a private page (not an academic). I think it is better to use a valid source for sample size calculation.	✓ *Reference number 22 has been removed.* ✓ *2020 references have been added*

3 Revision 2

2 comments · 15 Mar 2021 – 16 Mar 2021

Associate Editor

ACCEPT 15 Mar 2021

Dear EIC,
The authors have made good efforts to address the reviewer's comments in revising the article. This second version of the article has been much improved, and I do not have further comments. I am satisfied with the changes.
Best Regards

Editor-in-Chief

MINOR REVISION 16 Mar 2021

Dear Authors
Thank you for improving the quality of the article. However, some grammatical problems are still observed in the manuscript. It is suggested that the article be edited by a native editor and that you send the confirmation letter to the journal.
Thanks.

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.

Dear Dr. Parviz Kokhaei

Thank you for your valuable suggestion. The manuscript has been edited by the native speaker and a confirmation letter has been attached.

Thanks

4 Revision 3

1 comment · 3 Apr 2021

Editor-in-Chief

ACCEPT 3 Apr 2021

Dear Authors
We are pleased to inform you that your article is accepted for publication in the MEJRHS. We hope to receive other suitable articles from your group.
Thanks.