Quality assessment of instructions for authors in dental, oral and maxillofacial journals

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Cover letter

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24   Dear Editor-in-Chief,

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26   Please receive our article titled "Quality assessment of instructions for authors in
27   dental, oral and maxillofacial journals" for open evaluation in Nemesis journal.
28   1) Summarize the study's contribution to the scientific literature: we developed
29   and tested the inter-observer reproducibility of the instruction for authors quality
30   assessment rating (IAQR) describing the quality of instructions for authors at
31   journal level for a possible editorial improvement of content of instructions for
32   authors.
33   2) Relate the study to previously published work: no previous studies have
34   developed a reproducible metric for evaluating the completeness of instructions
35   for authors.
36   3) Specify the type of article (for example, research article, systematic review,
37   meta-analysis, clinical trial): we provide with research article.
38   4) Describe any prior interactions with Nemesis regarding the submitted
39   manuscript: Olszewski R and Hebda A developed instructions for authors for
40   Nemesis journal based on the results from this study.
41   5) Nemesis aim and scope relevance: Nemesis is a young open access scholarly
42   published journal. Nemesis needs to improve instructions for authors against the
43   best available existing publishing standards. Our study may positively contribute
44   to the quality of the instructions for authors of Nemesis journal.
45   Moreover, this area or research is neglected in oral and maxillofacial literature.
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Abstract

Objective: to develop and test inter-observer reproducibility of instructions for authors quality rating (IAQR) tool measuring the quality of instructions for authors at journal level for a possible improvement of editorial guidelines.

Material and methods: instructions for authors of 75 dental and maxillofacial surgery journals were assessed by two independent observers using assessment tool inspired from AGREE with 16 questions and 1 to 4 points scale per answer. Two observers evaluated the instructions of authors independently and blind to impact factor of a given journal. Scores obtained from our tool were compared with "journal impact factor 2013".

Results: IAQR presented with an excellent interobserver reproducibility ($\kappa= 0.81$) despite a difference in data distribution between observers. There existed a weak positive correlation between IAQR and "journal impact factor 2013".

Conclusions: The IAQR is a reproducible quality assessment tool at the journal level. The IAQR assess the quality of instruction for authors and it is a good starting point for possible improvements of the instructions for authors, especially when it comes to their completeness.

Nemesis relevance: 28% of dental and maxillofacial journals might revise their instructions for authors to provide more up-to-date version.

Keywords: instructions for authors, scientific publication, impact factor, quality assessment, bibliometrics

Introduction

It is possible nowadays to build a scholarly independent open access scientific journal with no author charges and based on open access journal system platforms such as open journal system (OJS) from Public knowledge Project [1]. However, new editors of these open access journals need first to write their own instructions for authors from scratch. Some general information about the content and the improving of instructions for authors of medical journals can be found in the literature [2-4]. Instructions for authors written for serious scholarly open access journals should also present with guaranty of ethical publishing as respecting ethical requirements in scholarly publications is a key for research integrity. New coming independent scholarly editors should be inspired from the best quality instructions for authors in their own domain, such as in dental science. However, a qualitative metric assessment of available instructions for authors is not yet available for dental science journals. Therefore, the aim of our study was to propose and to test the inter-observer reproducibility of the instruction for authors quality assessment rating (IAQR) tool. The first null hypothesis was that the IAQR was not a reproducible tool. Moreover, we also wanted to know if IAQR was correlated to impact factor, as it is a main bibliometric parameter of global quality of a given journal. The second null hypothesis was that the IAQR was not correlated to impact factor.

Materials and methods

A study was designed to address these research questions. A quality assessment of instructions for authors questionnaire was prepared and inspired from AGREE instrument. The AGREE is a validated tool for assessing medical guidelines (Appraisal of guidelines for research and evaluation) (http://www.agreetrust.org/). "The AGREE Reporting Checklist is intended to assist practice guideline developers to improve the completeness and transparency of reporting in practice guidelines. The checklist can also provide guidance to peer reviewers, journal editors, and guideline users about the essential components of a high quality practice guideline." *http://www.agreetrust.org/resource-centre/agree-reporting-checklist/*
The AGREE tool served also to evaluate the quality of classification schemes for knowledge translation interventions [5]. We have follow the structure of AGREE for scope and purpose, rigor and development, and applicability. We have added specific questions with a direct link with editorial policies for example if the procedure is put in place to prevent plagiarism. Question that were not relevant to our study were deleted. For example in the stakeholder involvement section the question about if the guidelines were prepared by competent persons. The editorial instructions for authors in the medical and dental journals are not signed by its authors but we assumed that they have been all prepared by competent persons. We also don't have access to this kind of information (Table 1). The questions were divided into three sections: scope and purpose, rigor and development, and

124 applicability. A four-point rating scale was used with 4=strongly agree, 3=agree,
125 2=disagree, 1=strongly disagree. The four-point scale gave us flexibility to
126 distinguish more complete instructions for authors from very laconic ones. For
127 example, some instructions for authors describe in an elaborated way what is the
128 competing interest and ask for a separate signed declaration giving lots of examples
129 such as being a witness, serving as expert, owning a stocks, receiving administrative
130 support, owning a patent, receiving fellowship etc. and thus needs to be declared.
131 This kind of guidelines scored 4 points while those that were only mentioning
132 briefly without any explanation were getting 3 points.
133 The standardized domain was calculated as follows: = *(Obtained score* minus
134 *minimum possible score)* divided by *(maximum possible score* minus *minimum*
135 *possible score).*
136 The maximal possible score was 64 points, and the minimal possible score was 16
137 points.

138   **Table 1.** Quality assessment form developed for the study**.**

I	Scope and purpose	4-strongly agree	3-agree	2-disagree	1-strongly disagree
1	The overall objectives of the instructions for authors are well presented and described				
2	The instructions for authors refer to the ICMJE recommendations (Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals) or other international standards such as COPE				
3	Ethical committee approval is required				
4	Patient consent is required				
5	Animal welfare protection is required				
6	A declaration of any conflict of interest is explained and required				
7	A disclosure of financial gains is explained and required				
8	The appropriate authorship is clearly explained and required				
9	A statement regarding the originality and exclusivity of the paper is required				
10	The peer-review procedure is explained including the number of peer- reviewers				
II	**Rigor and development**				
11	All sections of the journal have the same submission criteria (both for articles and non-research materials), and if not, the differences are clearly indicated				
12	All authors provide their signatures as do the medical editors and other participants of the publi-				

	cation process				
13	A procedure is in place to prevent plagiarism, the duplication of publications, text recycling and other unfair practices				
III	**Applicability**				
14	The instructions for authors provide clear tools, advices, examples, links and forms				
15	The instructions for authors include monitoring, control or audit information				
16	The instructions for authors includes the appeals procedure				

139
140 The list of journals was based on the free-access Hong Kong library list from 2013
141 (https://lib.hku.hk/denlib/impactfactor.html), which was extracted from InCites
142 Journal Citation Reports, 2013 JCR Science Edition, with limited access. The
143 assessment was conducted by two observers independently, as recommended in the
144 methodology of the AGREE instrument. The first observer had a social science
145 background (master in sociology), and the second observer had a medical
146 background with both dental and medical degrees. The two assessments were
147 conducted independently, and the observers did not know the journal impact factor
148 (JIF) of a given journal. The journal impact factor was added at a later stage when
149 the evaluation had already been completed. Some journals had to be eliminated
150 because bibliometric data were missing. The inclusion criterion was the availability
151 of full instructions for authors on the journal's webpage. We selected only English-
152 and French- language journals. Ultimately, 75 journals were assessed from the
153 original list of 82 journals. The data for "journal impact factor 2013" were compiled
154 from the impact factor listing for dentistry, oral surgery and medicine journals in the
155 2013 JCR Science Edition (https://jcr.incites.thomsonreuters.com). The JIF is
156 calculated by the number of citations (C) that a journal receives in a given year
157 divided by the number of all "citable" articles it published during the last two years
158 (A). The formula is JIF= C/A.

159 ## Statistical methods

160   We used a weighted kappa coefficient to measure the inter-observer
161 reproducibility of IAQR tool. The weighted kappa coefficient goes from 1-
162 maximum (excellent reproducibility) to 0-minimum (bad reproducibility). This scale
163 could be further
164 divided into five intervals: 1) excellent (0.81 to 1), 2) good (0.61 to 0.8), 3) mean
165 (0.41 to 0.6), 4) low (0.21 to 0.4), and 5) bad reproducibility (0.00 to 0.2). To know
166 if there was a significant difference between the observers for all or any of the
167 qualitative questions we measured the difference of repartition of the data with Chi-
168 squared test. For paired values we used the score of Cochran-Mantel-Haenszel
169 (CMH). We used a Pearson correlation coefficient to analyze the correlation
170 between IAQR (quantitative variable) and JIF. A p-value <0.05 was considered

171   significant.

Results

Descriptive statistics

174   The instructions for authors quality assessment ratings for all the journals and both
175   observers along with JIF are provided in Table 2. The list of journals is presented
176   from the best rating to the lowest rating.
177
178   **Table 2**. The instruction for authors quality assessment ratings (IAQR) for all
179   journals, for both observers, for related country, and journal impact factor
180   2013.
181

Journal title	Obs 1	Obs 2	Country	Journal impact factor 2013
Journal of clinical periodontology	61	60	Danemark	3.610
Periodontology 2000	61	60	Danemark	3.000
Dentomaxillofacial radiology	61	59	UK	1.271
Archives of oral biology	60	59	UK	1.880
Journal of oral pathology and medicine	62	57	UK	1.870
British journal of oral and maxillofacial surgery	59	59	UK	1.133
Dental materials	59	58	USA	4.160
American journal of orthodontics and dentofacial orthopedics	59	57	USA	1.437
International journal of oral science	58	58	China	2.029
International dental journal	59	56	USA	1.195
Journal of periodontal research	59	56	Danemark	2.215
Clinical implant dentistry and related research	58	57	UK	2.796
Cranio	58	57	USA	0.723
Odontology	58	56	Japan	1.354
Orthodontics and cranio-facial research	58	56	UK	1.288
International endodontic	58	56	UK	2.273

journal				
European journal of dental education	59	55	UK	1.448
International journal of paediatric dentistry	57	57	UK	1.540
Oral oncology	57	56	UK	3.029
Clinical oral implants research	56	57	Danemark	3.123
Journal of applied oral science	58	54	Brazil	0.803
Caries research	56	56	Switzerland	2.500
Clinical oral investigations	56	56	Germany	2.285
Oral diseases	57	54	UK	2.404
Journal of advanced prosthodontics	56	55	South Korea	0.631
Dental traumatology	58	53	Danemark	1.214
Acta odontologica scandinavica	55	55	UK	1.309
Journal of dental sciences	54	56	Taiwan	0.465
Journal of oral rehabilitation	56	53	UK	1.934
Head and face medicine	56	52	UK	0.867
Community dentistry and oral epidemiology	56	52	Danemark	1.944
European journal of oral sciences	56	52	Danemark	1.729
Gerodontology	55	53	Danemark	0.806
Journal of dentistry	55	53	Netherlands	2.840
Brazilian oral research	53	54	Brazil	0.774
International journal of prosthodontics	54	53	USA	1.185
Journal of orofacial pain	52	54	USA	1.771
Journal of dental education	54	51	USA	1.040
Journal of adhesive dentistry	53	52	USA	1.435
International journal of oral and maxillofacial surgery	54	50	USA	1.359
Australian orthodontic journal	54	50	AU	0.269
Cleft palate craniofacial journal	52	52	USA	1.106
Journal of periodontology	52	52	USA	2.565

Journal of oral and maxillofacial surgery	53	50	UK	1.280
Journal of cranio-maxillo-facial surgery	53	50	USA	2.597
Australian dental journal	52	50	AU	1.482
European journal of orthodontics	52	49	UK	1.390
Journal of dental research	52	49	USA	4.144
Oral surgery oral medicine oral pathology and oral radiology	50	51	USA	1.265
Journal of the american dental association	49	51	USA	2.238
Oral health and preventive dentistry	49	50	USA	0.532
Quintessence international	49	49	USA	0.728
Molecular oral microbiology	49	48	USA	2.841
Journal of endodontics	48	49	USA	2.788
BMC oral health	48	47	UK	1.147
Journal of prosthetic dentistry	47	48	USA	1.419
European journal of oral Implantology	46	47	USA	2.017
Journal of public health dentistry	48	44	UK	1.644
Korean journal of orthodontics	46	46	South Korea	0.370
Australian endodontic journal	44	47	AU	0.744
Medicina oral patologia oral y cirurgia bucal	45	46	Spain	1.095
Journal of orofacial orthopedics	48	41	Germany	0.819
British dental journal	45	43	UK	1.076
American journal of dentistry	43	44	USA	1.062
International journal of oral and maxillofacial implants	44	40	USA	1.491
Journal of the canadian dental association	44	40	Canada	0.598
European journal of paediatric dentistry	43	37	Italy	0.484
Angle orthodontist	41	37	USA	1.277
Dental materials journal	41	36	Japan	0.943
Revue de stomatologie	36	34	France	0.298

et de chirurgie maxillo-faciale				
Journal of esthetic and restorative dentistry	36	30	UK	0.840
Implant dentistry	35	31	USA	1.110
Operative dentistry	30	31	USA	1.266
International journal of periodontics and restorative dentistry	24	21	USA	1.007
Community dental health	18	20	UK	0.871

182
183   Among all the selected journals, 69% were from English-speaking world (USA, UK,
184   Australia, and Canada).
185   The mean, median, minimum, maximum, and standard deviations are provided for
186   all bibliometric parameters and for the two observers' ratings in Table 3.
187
188   **Table 3.** Mean, median, minimum, maximum, and standard deviation for JIF
189   and for the two observers ratings.
190

	Median	**Minimum**	**Maximum**	**Mean**	**Standard deviation**	**Transformation**
journal impact factor 2013	1.31	0.27	4.16	1.67	0.9	$Y=Ln(X)$
rating observer 1	54	18	62	51.3	8.4	$Y=Ln(65-X)$
rating observer 2	52	20	60	49.7	8.6	$Y=Ln(65-X)$

191

192   **Analytic statistics**

193   Inter-observer reproducibility testing for the IAQR was performed on non-
194   transformed variable ratings. The weighted kappa coefficient for all the data was $\kappa=$
195   0.81, and IAQR presented with an excellent interobserver reproducibility. The kappa
196   values were measured for each question (Table 4) and for each journal (Table 5).
197
198

199

Table 4. Weighted kappa coefficient for each IAQR question.

200

Question number	Weighted kappa coefficient	Inter-observer reproducibility meaning
1	0.394	Low
2	0.708	Good
3	0.828	Excellent
4	0.854	Excellent
5	0.826	Excellent
6	0.817	Excellent
7	0.754	Good
8	0.560	Mean
9	0.675	Good
10	0.620	Good
11	0.726	Good
12	0.411	Mean
13	0.865	Excellent
14	0.627	Good
15	0.844	Excellent
16	0.642	Good

201

202

Table 5. Weighted kappa coefficient for all selected journals.

203

Journal title	Obs 1	Obs 1	Weighted kappa coefficient
Journal of clinical periodontology	61	60	0.846
Periodontology 2000	61	60	0.724
Dentomaxillofacial radiology	61	59	0.729
Archives of oral biology	60	59	0.877
Journal of oral pathology and medicine	62	57	0.394
British journal of oral and maxillofacial surgery	59	59	0.892
Dental materials	59	58	0.676
American journal of orthodontics and dentofacial orthopedics	59	57	0.605
International journal of oral science	58	58	0.810
International dental journal	59	56	0.733
Journal of periodontal research	59	56	0.733
Clinical implant dentistry and related research	58	57	0.911
Cranio	58	57	0.902
Odontology	58	56	0.833
Orthodontics and craniofacial research	58	56	0.833
International endodontic journal	58	56	0.830
European journal of dental education	59	55	0.667

International journal of paediatric dentistry	57	57	1
Oral oncology	57	56	0.92
Clinical oral implants research	56	57	0.76
Journal of applied oral science	58	54	0.704
Caries research	56	56	0.686
Clinical oral investigations	56	56	0.846
Oral diseases	57	54	0.623
Journal of advanced prosthodontics	56	55	0.926
Dental traumatology	58	53	0.633
Acta odontologica scandinavica	55	55	0.856
Journal of dental sciences	54	56	0.857
Journal of oral rehabilitation	56	53	0.8
Head and face medicine	56	52	0.742
Community dentistry and oral epidemiology	56	52	0.579
European journal of oral sciences	56	52	0.748
Gerodontology	55	53	0.744
Journal of dentistry	55	53	0.744
Brazilian oral research	53	54	0.563
International journal of prosthodontics	54	53	0.934
Journal of orofacial pain	52	54	0.756
Journal of dental education	54	51	0.821
Journal of adhesive dentistry	53	52	0.824
International journal of oral and maxillofacial surgery	54	50	0.776
Australian orthodontic journal	54	50	0.765
Cleft palate craniofacial journal	52	52	0.884
Journal of periodontology	52	52	0.884
Journal of oral and maxillofacial surgery	53	50	0.708
Journal of cranio-maxillo-facial surgery	53	50	0.838
Australian dental journal	52	50	0.893
European journal of orthodontics	52	49	0.733
Journal of dental research	52	49	0.710
Oral surgery oral medicine oral pathology and oral radiology	50	51	0.606
Journal of the american dental association	49	51	0.888
Oral health and preventive dentistry	49	50	0.949
Quintessence international	49	49	0.795
Molecular oral microbiology	49	48	0.846
Journal of endodontics	48	49	0.75
BMC oral health	48	47	0.592
Journal of prosthetic dentistry	47	48	0.833
European journal of oral implantology	46	47	0.518
Journal of public health dentistry	48	44	0.719
Korean journal of orthodontics	46	46	0.801
Australian endodontic journal	44	47	0.759
Medicina oral patologia oral y cirurgia bucal	45	46	0.667
Journal of orofacial orthopedics	48	41	0.598

British dental journal	45	43	0.821
American journal of dentistry	43	44	0.868
International journal of oral and maxillofacial implants	44	40	0.788
Journal of the canadian dental association	44	40	0.788
European journal of paediatric dentistry	43	37	0.529
Angle orthodontist	41	37	0.832
Dental materials journal	41	36	0.781
Revue de stomatologie et de chirurgie maxillo-faciale	36	34	0.807
Journal of esthetic and restorative dentistry	36	30	0.610
Implant dentistry	35	31	0.813
Operative dentistry	30	31	0.744
International journal of periodontics and restorative dentistry	24	21	0.730
Community dental health	18	20	0.644

With CMH test we found a significant difference for all the data (p<0.0001). When looking at each question we found a significant difference between observers for question 1 (p<0.0001), for question 8 (p<0.0001), for question 13 (p=0.0008), for question 14 (p<0.0001), and for question 16 (p<0.0001). These findings could seem contradictory when looking at the previous analysis of inter-observer reproducibility of IAQR. However, for the CMH test the score of the difference is the same between 1 point-strongly disagree (observer 1) and 2 points- disagree (observer 2) as between 1 point (observer 1) and 4 points-strongly agree (observer 2). There exists no quantitative difference between small difference and great difference in CMH test.

We found a positive correlation between the IAQR and JIF. Higher is the IAQR higher is JIF (observer 1: p=0.0026, r=0.34; observer 2: p=0.001, r=0.37). The coefficient r of correlation of Pearson gives the strength of correlation. The correlation is low in the interval of 0.34 to 0.37.

When using the technique of recursive partitioning we can find a significant difference (p<0.05) between journals with a pivotal score of 48 points. Journals that present with a IAQR score below 48 have a mean JIF of 1.02, and journals with the score above 48 points have a mean JIF at 1.79.

Discussion

The analysis of inter-observer reproducibility of IAQR tool shows that there are few or no major rating differences between observers. However, the CMH analysis shows a lot of small rating differences between the observers for questions n°1, 8, 13, 14, and 16. Questions in IAQR are inspired from AGREE tool which is used as a guide to obtain a consensus of a group of experts working together on a given topic. Therefore, the final quality rating score for each question is obtained after discussion between researchers. The team discussion allows also to better understand the

meaning of the given question. In our study both observers worked independently, and their answers were on the lecture of instructions for authors and on their own comprehension of the proposed open questions. Questions n°1 (p<0.0001) about the quality of the overall objectives, question n°12 (Table 4) about signatures of documents, question n°13 (p=0.0008), about prevention of fraud, and question n° 14 (p<0.0001) about links and forms, should be improved. We may provide some examples of which type of information should be expected to give 3 (agree) or 4 points (strongly agree) or absent to give 2 (disagree) or 1 point (strongly disagree) for this type of question. The question n°8 (p<0.0001) about the authorship should better follow a quantitative 4 point scale rather than qualitative agree-disagree scale, as authorship should ideally meet up to four criteria proposed by ICMJE. These criteria are: 1) a major contribution to the design, data acquisition, or analysis; 2) drafting the manuscript; 3) final approval for publication; and 4) a signed agreement by all authors taking responsibility for the integrity of the publication (ICMJE). One point could be given for the presence of any of these items, and up to four points may be given if all of them are described in the instructions for authors. The question n°16 (p<0.0001) about the inclusion of the appeal procedure should better follow a two points scale yes/no or 0/1 point scale as the rating is related to the presence/absence of a given item.

The IAQR tool presented also with a positive correlation with JIF. Higher the IAQR score is higher the JIF of a given journal is. We found that a pivotal score of 48 points separate journals with better quality instructions for authors from those that may need to revise their own. In fact, 21 out of 75 journals in our study (28%) which presented with a IAQR score under 48 points may revise their instructions for authors to improve their completeness. However, JIF can be modified by many questionable editorial strategies including: 1) Increasing the number of authors per article to increase further self-citations and, secondarily the JIF; 2) Selecting the type of

articles to increase the number of systematic reviews, which are more frequently cited than are primary studies, or case studies [6], and avoiding the publication of case studies; 3) selecting shorter articles that are more quickly accessed, read and cited; 4) selecting specific words and phrases in titles, and abstracts to improve keyword searches in databases and increase the number of citations for a given article; 5) selecting an arbitrary 2-year time window at the beginning of the JIF definition [7] to encourage authors to publish research within 2 years, which requires an editorial effort to reduce the review and publication times, although some editors use unethical practices such as encouraging authors after submission to cite articles in their reference list from the 2 last years of that journal [8]; 6) selecting English or providing translations of abstracts and articles in English instead of the national language because higher JIFs are associated with English language journals (JIF was created as a tool for US librarians) [7]; and 7) using the asymmetry of the JIF equation, in which the denominator indicates "citable" articles, which are original articles, reviews, and notes, and the nominator is created from

citations from all sources, including editorials, and letters. Increasing the percentage of correspondence with a high number of self-citations results in an artificial improvement of JIF. The number of "citable" articles could also decrease or increase the JIF. The JIF fluctuates with the size of the journal, and a larger size means a lower fluctuation, with a 40% modification for journals with less than 35 articles per year and a 15% modification for journals with more than 150 articles per year [9]. The nature of the citation is also ignored when calculating JIF. Citation are added regardless of whether they are credited or criticized, and they are not retracted if the article is retracted [8]. Therefore, a positive correlation between IAQR and JIF has sense only if JIF is not modified by editorial internal policies.

Moreover, a question which could also be added to our IAQR tool is about who wrote and when the instructions for authors and if any update is to be expected in the future. This information is absent from all of the journals in our study. The lack of time frame reference in instructions for authors document avoids any criticism we could raise about editorial following or not the arising modifications of international standards in ethical publishing.

The IAQR test and proposed questions could serve also as a minimal toolkit for editorial beginners in scholar open access publication to build up their own instructions for authors.

The aim and scope of a journal should be clearly explained and easily found at the beginning of the instructions. The journal should prove its novelty and originality against other already existing journals in the same domain. The target readership should be also described to avoid unnecessary submissions at early stage.

Instructions for authors should follow all currently available international recommendations including the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals (ICMJE-International Committee of Medical Journal Editors Recommendations, formerly the Uniform Requirements for Manuscripts, http://www.icmje.org). ICMJE recommendations define 1) the role of authors and contributors; 2) author responsibilities (conflict of interest); 3) responsibilities in the submission and peer-review process; 4) the role of the journal owner and editorial freedom; 5) the protection of research participants; 6) publishing and editorial issues (particularly regarding scientific misconduct, the expression of concerns, retractions, copyrights, and overlapping publications); and 7) manuscript preparation. The instructions for authors may also follow the recommendations of COPE (Committee on Publication Ethics, http://publicationethics.org/), which provide advice and procedures on how to detect and resolve cases of scientific misconduct.

Ethical committee (or internal review board, IRB) approval with the number of the approved protocol should accompany the manuscript for all research involving humans or animals.

Patient consent is required in all human experiments (Nuremberg Code) and also when there is a concern about maintaining patient anonymity (ICMJE). If animals are involved in a study, the authors should follow the guidelines from the International Association of Veterinary Editors' Consensus Author Guidelines on Animal Ethics and Welfare (http://veteditors.org/ethicsconsensusguidelines.html).

A declaration of any conflicts of interest and a disclosure of financial gains must be required and explained with examples, such as payment from a third party for any aspect of the submitted work; financial relationships during the 36 months prior to publication; intellectual property, such as patents and royalties dues; and relationships not covered by other items. A conflict of interest form should be available for download from the journal's webpage and prepared according to ICMJE recommendations and the legal requirements of a given country.

The authorship should meet one up to all four criteria proposed by ICMJE: 1) a major contribution to the design, data acquisition, or analysis; 2) drafting the manuscript; 3) final approval for publication; and 4) a signed agreement by all authors taking responsibility for the integrity of the publication (ICMJE). A statement regarding the originality and exclusivity of the paper should be required (COPE).

The peer-review process should be explained. The editorial freedom allows to chose any type of peer-review, from single blind, double blind, and/or open review with pre-publishing or post-publishing peer-review process.

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Transparent methods for monitoring, controlling, auditing, and appealing a final decision should be clearly described in the instructions for authors

Our study shows some limitations. The IAQR score was focused mostly on ethical requirements, not on formal instructions for authors (formatting, tables, figures, references, style, editing). We also selected dentomaxillofacial journals only from the Hong Kong list which is open access instead of the Journal Citation Report (Thomson Reuters) which is a non-open access list. More dental journals could be investigated using the Journal Citation Report list. However the majority of journals has already been tested in our study. A significant number of non-indexed dental journals also exist (Scopus) that could be investigated using the IAQR methodology. We also limited our search to journals in English and French language only and to a limited period of time.

363 Finally, the first null hypothesis was rejected as the IAQR tool was a reproducible
364 tool. Moreover, the second null hypothesis was also rejected as the IAQR tool was
365 positively buy weakly correlated to impact factor.

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375 • **Informed consent**: There was no need for informed consent for this study.

376 **Authors contribution:**

Author	Contributor role
Hebda A	Conceptualization, Data curation, Investigation, Methodology, Validation, Writing original draft preparation, Writing-review and editing
Odri GA	Formal analysis, Methodology, Validation, Writing-review and editing
Olszewski R	Conceptualization, Data curation, Investigation, Methodology Resources, Validation, Writing original draft preparation, Supervision, Writing original draft preparation, Writing-review and editing

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