

Quality Assessment of Abstracts of the International Congress of Nephrology and Urology (ICNU 2015)

Alireza Mehrazmay,¹ Mahmood Salesi,² and Alireza Karambakhsh^{1,*}

¹Behavioral Sciences Research Center, Baqiyatallah University of Medical Sciences, Tehran, IR Iran

²Nephrology and Urology Research Center, Baqiyatallah University of Medical Sciences, Tehran, IR Iran

*Corresponding author: Alireza Karambakhsh, Behavioral Sciences Research Center, Baqiyatallah University of Medical Sciences, Tehran, IR Iran. Tel/Fax: +98-2182482466, E-mail: arkarambakhsh@gmail.com

Received 2016 January 01; Revised 2016 June 14; Accepted 2017 July 03.

Abstract

Background: There are some legislated criteria for improving the quality of articles' abstract presentation.

Objectives: The aim of this study was to evaluate oral and poster abstracts submitted at the first International Congress of Nephrology and Urology, held in Tehran during June, 2015.

Methods: One hundred and forty-eight abstracts were assessed by 2 reviewers. Using the 19-item Timer checklist, the researchers examined the study design, number of authors, field of study, and language and quality score for each abstract. The comparisons between groups were done using the Mann-Whitney and Kruskal-Wallis tests by SPSS software with P values of less than 0.05 considered as significant.

Results: The quality score mean of all articles of congress was 0.65 ± 0.14 . Structured abstracts ($P = 0.026$), articles of student field (P value = 0.032), and of human observational design (P value = 0.007) had a significantly better quality score. The best average score of the Timer checklist was related to subjects' appropriateness for the study question (1.89 ± 0.35) and the worst was related to method and appropriateness of subjective selection (0.89 ± 0.84).

Discussion: Developing a specific quality scale for basic studies, assessing articles stricter before acceptance and necessitating authors to write their abstracts in structured form are required.

Keywords: Quality Assessment, Abstract, Checklist, Nephrology, Urology

1. Background

To improve the presentation of abstracts, a standard structure and quality score has been suggested for journals and congress posters (1), and many studies have evaluated the quality and congruency of structured abstracts with the main text (2-6).

On the other hand, the first place in which articles are presented, are usually congresses. A review showed that from all abstracts initially presented at professional meetings, the ratio of subsequently published peer-reviewed journal articles are 44.5% and 63.1% for all studies and randomized or controlled clinical trials, respectively. Thus, probable publication bias (7) makes abstracts of congress important.

2. Objectives

The aim of this study was to evaluate abstracts submitted at the first international congress of nephrology and urology, which was held in Tehran during June, 2015.

3. Methods

The international congress of nephrology and urology was successfully held in Tehran on 10th to 12th of June 2015 by 148 accepted oral or poster abstracts in the fields of urology, nephrology, and student. All of the report qualities were assessed by 2 reviewers using the 19-item Timer checklist (1). This checklist is a reliable, valid, and applicable instrument and most useful in clinical research settings (1). This checklist is comprised of 19 items. For each item, a maximum of 2 points is awarded (0 if not met, 1 if partially met, and 2 if fully met). The quality score, which ranges from 0 to 1, was calculated by dividing the final abstract score (the sum of study score and design) to expected final score.

The researchers examined study design, number of authors, field of study, language, and quality score for each abstract. The quality score of reports was presented as mean \pm standard deviation (SD). The comparisons between groups were done using the Mann-Whitney and Kruskal-Wallis tests by the SPSS software (P value < 0.05 considered statistically significant).

4. Results

One hundred and thirty-six structured and twelve unstructured abstracts with a quality score mean of 0.65 ± 0.14 were accepted in the congress. Structured abstracts had significantly better quality score than unstructured ones ($P = 0.026$).

The most common design and field of study were “human observational study” (54.7%) and “nephrology” (49.3%), respectively. The articles of “student” field (P value = 0.032) and “human basic” design (P value = 0.007) had the highest quality score means. Quality score of observational studies (basic or human studies) were higher than interventional studies (Table 1).

The highest score of common items of the Timer checklist was related to “subjects appropriateness for the study question” (average score: 1.89 ± 0.35) and the lowest was related to method and appropriateness of subjective selection (average score: 0.89 ± 0.84) (Table 2).

5. Discussion

The overall quality score mean of ICNU, 2015 was 0.65 ± 0.14 . The highest and lowest scores were related to “subjects’ appropriateness for the study question” and “method of subjective selection described and appropriate”, respectively. This shows proper approaches to study question and targeted population yet weak selection and description method. Reporting quality of “student” field was better than other fields, perhaps due to more serious consideration of standards and longer time spent for writing the article. Also, interventional studies had the lowest quality score when compared with observational studies and this shows that authors of interventional studies focused on execution of the study.

Nourbala et al. (8) and Hosseini (9) assessed abstracts of the IXth (held during year 2004 in Ankara) and Xth (held during year 2006 in Kuwait) congress of the Middle East society for organ transplantation (MESOT) using the Timer checklist. Mean quality score of all abstracts for these two studies and the current study were 0.60 ± 0.11 , 0.67 ± 0.12 , and 0.65 ± 0.14 respectively.

A strong point of the current study was the assessment of all abstracts and having 2 reviewers with standardization. A limitation of this study was that 26 (17.5%) studies were basic and that the Timer et al. checklist has some limitations (1). However, the researchers used this checklist for faster assessment and comparison with similar studies.

5.1. Conclusions

The abstracts presented by ICNU 2015 had acceptable quality score, especially those of “student” field and “observational” type. Developing a specific quality scale for

basic studies, stricter assessment of articles before acceptance, and necessitating authors to write structured abstracts will improve future congresses.

Acknowledgments

The authors gratefully acknowledge all individuals, who helped in this research, especially Professor Einollahi for his kind collaboration.

Footnote

Authors’ Contribution: Alireza Mehrazmay and Mahmood Salesi contributed to data extraction, analysis, and interpretation. Alireza Karambakhsh contributed to critical revision and final approval of the study.

References

1. Timmer A, Sutherland LR, Hilsden RJ. Development and evaluation of a quality score for abstracts. *BMC Med Res Methodol*. 2003;3:2. [PubMed: 12581457].
2. Narine L, Yee DS, Einarson TR, Ilersich AL. Quality of abstracts of original research articles in CMAJ in 1989. *CMAJ Can Med Assoc J*. 1991;144(4):449.
3. Taddio A, Pain T, Fassos FF, Boon H, Ilersich AL, Einarson TR. Quality of nonstructured and structured abstracts of original research articles in the British Medical Journal, the Canadian Medical Association Journal and the Journal of the American Medical Association. *CMAJ Can Med Assoc J*. 1994;150(10):1611.
4. Wong H, Truong D, Mahamed A, Davidian C, Rana Z, Einarson TR. Quality of structured abstracts of original research articles in the British Medical Journal, the Canadian Medical Association Journal and the Journal of the American Medical Association: a 10-year follow-up study. *Curr Med Res Opin*. 2005;21(4):467–73. doi: 10.1185/030079905x38123.
5. Sharma S, Harrison JE. Structured abstracts: Do they improve the quality of information in abstracts? *Am J Orthodont Dent Orthoped*. 2006;130(4):523–30. doi: 10.1016/j.ajodo.2005.10.023.
6. Hartley J. Are structured abstracts more or less accurate than traditional ones? A study in the psychological literature. *J Inf Sci*. 2016;26(4):273–7. doi: 10.1177/016555150002600408.
7. Scherer RW, Langenberg P, von Elm E, Scherer RW. Full publication of results initially presented in abstracts. *Cochrane Database Syst Rev*. 2007(2):MR000005. doi: 10.1002/14651858.MR000005.pub3.
8. Nourbala MH, Einollahi B, Khoddami-Vishte HR, Assari S, Simforoosh N, editors. IX th MESOT Congress: Quality of the Abstracts. Transplantation Proceedings. 2007; Elsevier; pp. 786–7.
9. Hosseini MS. Quality Assessment of Abstracts of the Xth Congress of the Middle East Society for Organ Transplantation: Does It Need Improvement? *Nephro Urol Mon*. 2009;1(1, Summer):61–4.

Table 1. Abstract Characteristics According to Status

Character	Status	No. (%)	Quality Score (Mean \pm SD)	P Value
Field	Urology	54 (36.5)	0.64 \pm 0.14	0.032
	Nephrology	73 (49.3)	0.63 \pm 0.14	
	Student	21 (14.2)	0.72 \pm 0.11	
Study design	Human interventional	17 (11.5)	0.65 \pm 0.11	0.007
	Human observational	81 (54.7)	0.68 \pm 0.11	
	Basic interventional	22 (14.9)	0.61 \pm 0.11	
	Basic observational	4 (2.7)	0.69 \pm 0.14	
	Other	24 (16.2)	0.56 \pm 0.20	
Number of authors	1 - 2	43 (29.1)	0.65 \pm 0.14	0.88
	3 - 4	71 (48)	0.64 \pm 0.12	
	≥ 5	34 (23)	0.65 \pm 0.16	
Language	Persian	12 (8.1)	0.65 \pm 0.08	0.80
	English	136 (91.9)	0.65 \pm 0.14	
Structure of abstract	Structured	136 (91.8)	0.66 \pm 0.11	0.026
	Non- Structured	12 (8.9)	0.50 \pm 0.25	

Table 2. The Average Score of Common Items Among All Study Designs (Range 0 to 2)^a

Abstract Quality Assessment Items	Score
Subjects appropriate for the study Question	1.89 \pm 0.35
Question/objective sufficiently described	1.85 \pm 0.44
Do the results support the conclusion?	1.7 \pm 0.57
Design evident and appropriate to answer the study question	1.8 \pm 0.43
Results reported in sufficient details	1.51 \pm 0.58
Method of subjective selection described and appropriate	0.89 \pm 0.84
Subject characteristics sufficiently described	1.37 \pm 0.59

^aValues are expressed as mean \pm SD.