Accuracy of References in Indian Journal of Otolaryngology and Head & Neck Surgery

Prakash Adhikari

Received: 28 July 2010 / Accepted: 10 October 2010 / Published online: 4 January 2011
© Association of Otolaryngologists of India 2010

Abstract This study was done to observe the accuracy of references in articles published in Indian Journal of Otolaryngology and Head & Neck Surgery. There were 63 references randomly selected from different issues of Indian Journal of Otolaryngology and Head & Neck Surgery (IJOHNS). It includes: Volume 61, Number 4, December 2009 and Volume 62, Number 1, January 2010. References were examined in details by dividing them into six elements and they were compared with the original for accuracy. References not cited from indexed journals were excluded. Statistical analysis was done by using frequency and percentage. Results show that 30.1% references in Indian Journal of Otolaryngology and Head & Neck Surgery were incorrect. Most common errors were author's name and journal name. Author's names were found to be incorrect in 11.1% references while journal name were found to be incorrect in 6.3%. Errors in citing the references are also found in the Indian Journal of Otolaryngology and Head & Neck Surgery. The quoted error in this study is comparable to other international literatures. The majority of errors are avoidable. So, the authors, editors and the reviewers have to check for any errors seriously before publication in the journal.

Keywords References · Accuracy · Indian Journal of Otolaryngology and Head & Neck Surgery (IJOHNS)

Introduction

References provide background material for the subject of the article and support for comments made or theories expanded, and they demonstrate to the reader that the author has researched the topic in question comprehensively [1]. The accuracy of journal article references should be of significance to all authors, reviewers and readers. Accuracy of references reflects on the credibility of the author, the journal, and the research itself. Furthermore, it gives credit to the original researchers and allows readers to easily retrieve cited articles should they want to read more widely about a particular subject [2]. Accurate references in research studies are essential for the transmission of scientific knowledge so it is imperative that they should be written properly to make searching easy [3]. Inaccuracy of references citations in the published medical literature is an ongoing problem that has been identified in a variety of specialist medical journals [4].

The Indian Journal of Otolaryngology and Head & Neck Surgery (IJOHNS) is one of the oldest journals of India. So far there is no such study regarding the accuracy of references in Indian Journal of Otolaryngology and Head & Neck Surgery. So, this study was done to observe the accuracy of references in articles published in Indian Journal of Otolaryngology and Head & Neck Surgery.

Materials and Methods

There were 63 references randomly selected from different issues of Indian Journal of Otolaryngology and Head and Neck Surgery. It includes: Volume 61, Number 4, December 2009 and Volume 62, Number 1, January 2010. The instructions for authors of this journal were looked

No supports or grants obtained.

P. Adhikari (✉)
Department of ENT and Head and Neck Surgery,
TU Teaching Hospital, Kathmandu, Nepal
e-mail: drprakashadhikari@gmail.com

carefully. References were examined in details and compared them with the original for accuracy, using the following six elements: authors; including spelling, initials, order and number; title, including spelling and punctuation; journal name, including use of correct abbreviation as listed in Index Medicus; year; volume; and page numbers, including first and last page numbers. Citations were considered incorrect if there was an error in any of these six elements. Errors within each element were subdivided into categories according to the types of error found. References not cited from indexed journals were excluded. Statistical analysis was done by using frequency and percentage.

Results

Results show that 30.1% references in Indian Journal of Otolaryngology and Head & Neck Surgery were inaccurate. Most common errors were author's name and journal name. Author's names were found to be incorrect in 11.1% references while journal name (either incorrect abbreviations or incorrect instructions or punctuation errors) were found to be incorrect in 6.3% (Table 1). Least common errors in citing references were year (1.6%), volume number (3.2%) and title (3.2%). Some of the examples of errors in citing the references are given in Table 2.

Discussion

Inaccuracy of reference citations in the published medical literature is an ongoing problem that has been identified in a variety of international journals. The ethics of high quality research methods have been eloquently documented elsewhere and clearly state that accurate referencing is part of a good research practice [5]. References can often be traced back over several publications in which they were previously incorrectly cited—the error then becoming repetitious. This may be evidence of authors having drawn incorrect conclusions from another source without even examining the original context of the citation [6].

The international committee of medical journal editors states unambiguously that references must be verified by the author [7]. Reference citation errors can make it difficult for the reader to retrieve references and obtain, check or verify information to which the text of paper refers. Certain errors such as incorrect year, volume or page number make it particularly difficult to locate references and can be a source of frustration to the reader. Errors in the title and name of authors are important, because they detract from the credibility of the paper, the authors and the journal [6]. Major mistakes are the most important as they

Table 1 Frequency of reference errors in IJOHNS

Elements/Errors	Number (Percentage)
Authors name	
Spelling errors	4
Extra/missing author	0
Not as per journal criteria	3
References with errors (Total)	7 (11.1%)
Title	
Spelling error	0
Punctuation error	0
Omissions	2
Reference with errors (Total)	2 (3.2%)
Journal Name	
Incorrect abbreviation	3
Incorrect instruction	1
Missing journal name	0
Reference with errors (Total)	4 (6.3%)
Year	
Wrong year	1
Missing year	0
Reference with errors (Total)	1 (1.6%)
Volume number	
Incorrect volume number	2
Missing volume number	0
Reference with errors (Total)	2 (3.2%)
Page number	
Incorrect first page number	0
Incorrect last page number	3
Reference with errors (Total)	3 (4.7%)
Total	19 (30.1%)

make access to the reference difficult [8]. Minor errors might be considered as a sign of disrespect or lack of courtesy to the author or authors, and may impact negatively on their academic records by excluding the name from the citation index [9]. It has been suggested that carelessness and misuse of language, oversimplification of results, information gleaned from a book chapter or from an on-line abstract and not reading the original source are some reasons for the high error rate [10].

Several previous studies have examined the accuracy of references in different specialty journals, and have found error rates ranging from 3.0 to 60.0% [11, 12]. Ngan et al. [13] study examined the eight issues of the first two year of publication of Hong Kong Medical Journal, and has shown that overall rate of errors in reference citation was 56.0%, which is at high end of the range compared with that found in studies of other journals. Goldberg et al. [11] study found an error rate of 27.5% in a random sample citations from three major American emergency medicine journals.

Table 2 Examples of errors in references in IJOHNS

Authors name, journal name error and page number error

1. Deddens AE, Munta HR, Lusk RP (1993) Adipose myringoplasty in children. *Laryng* 103:216–218.
2. Deddens AE, Muntz HR, Lusk RP (1993) Adipose myringoplasty in children. **Laryngoscope** 103:216–219.

Incorrect instruction (et al. written wrongly)

1. Pearlman SJ, Lawson W, Biller HF, et al. (1989) Isolated sphenoid sinus disease. *Laryngoscope* 99:716–720.
2. Pearlman SJ, Lawson W, Biller HF, **Friedman WH, Potter GD** (1989) Isolated sphenoid sinus disease. *Laryngoscope* 99:716–720.

Title error

1. Taylor JC. Treatment of brain abscess. *Br J Neurosur* 1:173–178.
2. Taylor JC. **The case for excision in the** treatment of brain abscess. *Br J Neurosur* 1:173–178.

Journal name error

1. Fujii Y, Tanaka H, Kobayashi N (2001) Small doses of propofol, droperidol, and metoclopramide for the prevention of postoperative nausea and vomiting after thyroidectomy. *Otolaryngol Head Neck Surg* 124:266–269.
2. Fujii Y, Tanaka H, Kobayashi N (2001) Small doses of propofol, droperidol, and metoclopramide for the prevention of postoperative nausea and vomiting after thyroidectomy. **Otolaryngol Head Neck Surg** 124:266–269.

Year and author's name error

1. Varraso R, Siroux V, Maccario J, Pin I, Kauffman F (2004) Asthma severity is associated with body mass index and early menarche in women. *Am J Respir Crit Care Med* 171:334–339.
2. Varraso R, Siroux V, Maccario J, Pin I, Kauffman F; **Epidemiological Study on the Genetics and Environment of Asthma** (2005) Asthma severity is associated with body mass index and early menarche in women. *Am J Respir Crit Care Med* 171:334–339.

Volume number error

1. Ben-Aryeh H, Gutman D, Szargel R, Laufer D (1975) Effects of irradiation on saliva in cancer patients. *Int J Oral Surg* 14:205–210.
2. Ben-Aryeh H, Gutman D, Szargel R, Laufer D (1975) Effects of irradiation on saliva in cancer patients. *Int J Oral Surg* **4**:205–210.

Page number error

1. Leopold DA (1983). Laryngeal trauma: A historical comparison of treatment methods. *Arch Otolaryngol* 109:106–110.
2. Leopold DA (1983). Laryngeal trauma: A historical comparison of treatment methods. *Arch Otolaryngol* 109:106–**112**.

The corrected one is indicated by bold letters [1- uncorrected one and 2- corrected one]

An otolaryngology/head and neck surgery citation error rate of 37.5% was seen in study done by Fenton et al. [9]. Our recent study regarding accuracy of references in Indian Journal of Otolaryngology and Head & Neck Surgery revealed that 30.9% were inaccurate. This is comparable to rates calculated for other medical specialities, including anaesthetics (32–41%), dentistry (37%), general surgery (48%), and general medicine (24%) [13, 14]. Adhikari study [6] revealed that 11.6% references in Nepal Medical College Journal, 11.1% references in Journal of Nepal Medical Association and 23.3% references in Kathmandu University Medical Journal were inaccurate. Most common errors in all three journals quoted by Adhikari study [6] include author's name and journal name which is similar to our study. The provision of an incorrect journal title and failure to indicate that the relevant article originated in a supplement were the errors that made it most difficult to identify a paper. With the increasing availability of computerized medical data bases, it becomes more important to spell an author's name correctly.

In all journals, in instruction for authors section it is written that “authors are responsible for the accuracy of references and must verify them against the original

documents.” But this is not followed by the authors satisfactorily. The authors probably consider references the least important appendage of a manuscript and hence they fail to pay enough attention to it. Another reason for errors could be the misguided idea that no one (editorial team, reviewers or readers) would care about the references listed. A report on references accuracy in surgical journals blamed that “authors do not check their references or may not even read them” and further criticized for not checking the references [10]. An alternative would be for the editors or the reviewers to assume responsibility for checking papers before sending them to the publisher. However, this would be very time-consuming, considering the large number of papers that are submitted to journals, although a sample of references from each paper could be easily checked, and papers containing errors could then be returned with instruction to the authors to check the remaining citations. But the responsibility of editors and peer reviewers should be clarified in this regard. Accuracy of references may be improved if authors download directly from Medline or other search engines into their reference list [6]. Other methods to improve the accuracy of references citation include: direct consultation with the original work or obtaining this work from a computerized

database; submission of photocopies of first and last page of all references cited in the submitted article [5, 12]; reviewer checking of a sample of references from submitted articles, page proof sent to authors for final correction of the articles before publication; and limiting the number of references. Furthermore, editorial boards should make publishing requirements more stringent, because there is an association between the journal impact index and the number of errors [4].

In addition to above, author of this manuscript would like to suggest that there is more important role of the editor in chief and members of editorial board in this regard to improve the accuracy of references either by appointing the reference editor or by giving a strong instruction to the authors as for example if there are more than five mistakes in references, article will be send back to authors for correction and will not be published until all references are rechecked/corrected or the reviewers are strongly asked to review the references too. If these measures are adopted then we hope the inaccuracies in quoting the references will be decreased dramatically.

Conclusion

Errors in citing the references are also found in the Indian Journal of Otolaryngology and Head & Neck Surgery. The quoted error in this study (30.1%) is comparable to other international literature. The most common errors in references were author's name and journal name. The majority of errors are avoidable. So, the authors, editors and the reviewers have to check for any errors seriously before publication in the journal.

References

1. Browne RF, Logan PM, Lee MJ, Torreggiani WC (2004) The accuracy of references in manuscripts submitted for publication. *Canadian Assoc Radiol J* 55:170–173
2. Raja UY, Cooper JG (2006) How accurate are the references in emergency medical journal? *Emerg Med J* 23:625–626
3. Vargas-Origel A, Gomez-Martinez G, Vargas-Nieto MA (2001) The accuracy of references in paediatric journals. *Arch Dis Child* 85:497–498
4. Orlin W, Pehling J, Pogrel MA (1996) Do authors check their references? A survey of 500 references from the *Journal of Oral and Maxillofacial Surgery*. *J Oral Maxillofac Surg* 54:200–202
5. Biebuyek JF (1992) Concerning the ethics and accuracy of scientific citations. *Anesthesiology* 77:1–2
6. Adhikari P (2009) Accuracy of references in indexed journals of Nepal. *Nepal Med Coll J* 11:130–132
7. International Committee of Medical Journal Editors (1988) Uniform requirements for manuscripts submitted to medical journals. *Ann Intern Med* 108:258–265
8. Roach VJ, Lan TK, Ngan Kee WD (1997) The quality of citations in major international obstetrics and gynecology journals. *Am J Obstet Gynecol* 177:973–975
9. Fenton JE, Brazier H, De Souza A, Hughes JP, McShane DP (2000) The accuracy of citation and quotation in otolaryngology/head and neck surgery journals. *Clin Otolaryngol Allied Sci* 25:40–44
10. Evans JT, Nadjari HI, Bruchell SA (1990) Quotational and reference accuracy in surgical journals. A continuing peer review problem. *J Am Med Assoc* 263:1353–1354
11. Goldberg R, Newton E, Cameron J, Jacobson R, Chan L, Bukata WR et al (1993) Reference accuracy in the emergency medicine literature. *Ann Emerg Med* 22:1450–1454
12. Asano M, Mikawa K, Nishina Maekawa N, Obara H (1995) Improvement of the accuracy of references in the Canadian Journal of Anaesthesia. *Can J Anaesth* 42:370–372
13. Ngan Kee WD, Roach VJ, Lau TK (1997) The accuracy of references in the Hong Kong Medical Journal. *Hong Kong Med J* 3:377–380
14. Doms CA (1989) A survey of reference accuracy in five national dental journals. *J Dent Res* 68:442–444