

Accuracy of references in indexed journals of Nepal

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ABSTRACT

This study was done to observe the accuracy of references in articles published in indexed journals of Nepal. There were 30 references randomly selected from three indexed journals of Nepal published between January 2007 and December 2008. Nepal Medical College Journal (NMCJ), Journal of Nepal Medical Association (JNMA) and Kathmandu University Medical Journal (KUMJ) were selected as they are only indexed journals of Nepal. References were examined in details by dividing them into six components and they were compared with the original. References not cited from indexed journals were excluded. Statistical analysis was done by using frequency and percentage. Results shows that 11.6% references in NMCJ, 11.1% references in JNMA and 23.3% references in KUMJ were inaccurate. Most common errors in all three journals include author's name and journal name. Errors in citing the references are also found in the indexed journals of Nepal, KUMJ citing the highest percentage of errors. The majority of errors are avoidable. So, the authors, editors and reviewers have to check for any errors seriously before publication in the journal.

Keywords: References, accuracy, indexed journals, Nepal.

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 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.² The accuracy of journal article references should be of significance to all authors, reviewers and readers. These provide a source of information to the readers, as well as a means of verification of the assertions and interpretations of the paper.³ Previously, a high rate of errors in references citations has been identified in journals of different medical specialties.^{4,5} So far there are no such studies done from Nepal to check the accuracy of references in the medical journals of Nepal. So, this study was done to observe the accuracy of references in articles published in three indexed journals of Nepal.

METHODS

There were 30 references randomly selected from three indexed journals of Nepal published between January 2007 and December 2008. Nepal Medical College Journal (NMCJ), Journal of Nepal Medical Association (JNMA) and Kathmandu University Medical Journal (KUMJ) were selected as they are only indexed journals of Nepal. 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 shows that 11.6% references in NMCJ, 11.1% references in JNMA and 23.3% references in KUMJ were inaccurate. Most common errors in all three journals include author's name and journal name. Author's names were found to be incorrect in 6.7% references in NMCJ, 3.3% in JNMA and 8.3% in KUMJ. While journal name (either incorrect abbreviations or incorrect instructions or punctuation errors) were found to be incorrect in references of NMCJ in 2.7%, JNMA 3.8% and KUMJ 7.2%. (Table-1). Least common errors in citing references in all these three journals were year and volume number. Some of the examples of errors in citing the references in each of the journals are given in Table-2.

DISCUSSION

Accuracy of references reflects on the credibility of the author, the journal and the research itself.⁶ Furthermore,

Table-1: Frequency of errors in different journals

Elements/ Errors	NMCJ No (%)	JNMA No (%)	KUMJ No (%)
Authors			
Spelling errors	7	3	5
Incorrect initials	1	1	2
Extra/missing author	2	1	3
Not as per journal criteria	2	1	5
References with errors	12 (6.7%)	6 (3.3%)	15 (8.3%)
Title			
Spelling error	1	0	1
Punctuation error	1	1	3
Omissions	0	1	2
References with errors	2 (1.1%)	2 (1.1%)	6 (3.3%)
Journal Name			
Incorrect abbreviation	2	1	5
Incorrect instruction	1	2	3
Punctuation error	2	4	5
References with errors	5 (2.7%)	7 (3.8%)	15 (7.2%)
Year			
Wrong year	0	1	0
Missing year	0	0	0
References with errors	0 (0%)	1 (0.5%)	0 (0%)
Volume			
Incorrect volume number/missing	0	0	0
References with errors	0 (0%)	0 (0%)	0 (0%)
Page number			
Incorrect first page number	1	0	1
Incorrect last page number	1	2	3
Typographical errors	0	1	4
References with errors	2 (1.1%)	3 (1.7%)	8 (4.4%)
Total	21 (11.6%)	20 (11.1%)	42 (23.3%)

it gives credit to the original researchers and allows readers to easily retrieved cited articles should they want to read more widely about a particular subject.⁶ Inaccuracy of reference citations in the published medical literature is an ongoing problem that has been identified in a variety of specialist medical journal.⁷ 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.⁸ 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.

Errors in citation reflect poorly on the authors, the validity of the article, the peer review process, and the reputation of the journal. Most journals do not

individually check the authenticity of references. So the responsibilities for ensuring citations are correct lies with the author. In addition, the international committee of medical journal editors states unambiguously that references must be verified by the author.⁹

Several previous studies have examined the accuracy of references different specialty journals, and have found error rates ranging from 3.0-60.0%.^{10,11} 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 names of authors are important, because they detract from the credibility of the paper, the authors and the journal. Major mistakes are the most important as they make access to the reference difficult.¹² 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.¹³

Kee *et al* 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.³ Goldberg *et al* study found an error rate of 27.5% in a random sample citations from three major American emergency medicine journals.¹⁰ Our study revealed that 11.6% references in NMCJ, 11.1% references in JNMA and 23.3% references in KUMJ were inaccurate. Most common errors in all three journals include author's name and journal name. With the increasing availability of computerized medical data bases, it becomes more important to spell an author's name correctly.

Reference citation errors can make it difficult for the reader to retrieve references and obtain, check or verify information to which the text of a paper refers. The contributors probably consider references the least important appendage of a manuscript and hence they fail to pay enough attention to it. Another reason for

Table-2: Examples of errors in references in three journals

The correct one is indicated by bold letters (Reference is given in paranthesis).
Errors in Nepal Medical College Journal (NMCJ)
1. Missing 3rd author
Sinha BK, Choudhury M, Sinha R . Microfilaria in peritoneal fluid from an amicrofilaremic, pregnant woman. <i>Acta Cytol</i> 2001; 45: 898-9. (2008; 10: 108-12).
2. Author name and initial page number error
Upadhyay MP, Rai NC, Ogg JE, Shrestha BR. Seasonal hyperacute panuveitis of unknown etiology. <i>Ann Ophthalmol</i> 1984; 16: 38 -4. (2008; 10: 196-8).
3. Journal Name Citation error
Jauhari AC, Johorey AC. Antibiotics in acute coronary heart diseases. <i>Nepal Med Coll J</i> 2001; 2: 103-4. (2007; 9: 120-4).
Errors in Journal of Nepal Medical Association (JNMA)
1. Author name error (also punctuation error in title of article)
Marlow LA , Waller J, Wardle J. Parental attitudes to pre-pubertal HPV vaccination. <i>Vaccine</i> 2007; 25: 1945-52. (2008; 47: 167-71).
2. Author name error, missing title and journal name error
Taira AV, Naukermans CP, Sanders GD. Evaluating human papilloma- virus vaccination programs. <i>Emerg Infect Dis</i> 2004; 10; 1915-23. (2008; 47: 167-71).
3. Author name and year error
Grant EG, Tessler FN, Perrella RR. Clinical Doppler Imaging. <i>AJR Am J Roentgenol</i> 1989; 152: 707-17. (2008; 47: 156-66).
Errors in Kathmandu University Medical Journal (KUMJ)
1. Author name and title of article error
Temple CL, Huchcroft SA, Temple WJ. The natural History of appendicitis in adult: A prospective study. <i>Ann Surg</i> 1995; 221: 278-281 . (2008; 6: 161-5).
2. Missing author and title of the article
Brown MA, Buddle ML . What's in a name? Problems with the classification of hypertension in pregnancy. <i>J Hypertens</i> 1997; 15: 1049-54. (2008; 6: 268-72).
3. Last page number error
Giguere CM, Bauman NM, Sato Y, Burke DK, Greinwald JH, Fransky S. et al. Treatment of lymphangiomas with OK- 432 (picibanil) sclerotherapy: a prospective multi- institutional trial. <i>Arch Otolaryngol Head Neck Surg</i> 2002; 128: 1137- 44 . (2008; 5: 312-7).

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.¹⁴ 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.

Errors in citing the references are also found in the indexed journals of Nepal, KUMJ citing the highest percentage of errors. 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.

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