

Accuracy of references in the Kenya Eye Health Journal

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Abstract

Background: Accurate referencing is essential in academic and research publications, ensuring objectivity, rigor, and credibility. Such referencing provides context, builds on existing work, strengthens the reliability of articles, and guides readers to relevant sources. Errors in referencing pose a challenge in information retrieval and reduce access to information. This study aimed to evaluate the accuracy of references in articles published in Issue 1 of the Kenya Eye Health Journal (KEHJ).

Methods: References from articles published in KEHJ Issue 1, were extracted and analyzed for accuracy of bibliographic elements such as author, title, publisher, place of publication, year of publication, volume, issue, and page number, along with adherence to the Vancouver referencing format. Descriptive analysis was used to quantify the frequency and distribution of errors.

Result: All the 89 references from 7 articles were analyzed. Journal articles 69(78%) were the most frequently referenced. Two of the seven articles contributing 25/89 (28%) references did not use the Vancouver referencing style. Among the 50(56%) references which followed the recommended referencing style, 15(30%) were incorrectly formatted. The most common errors were author list (26%), omissions of DOI (45%), and errors in year of publication (15%).

Conclusion: The findings revealed gaps in adherence to journal author guidelines and errors in referencing accuracy. These inaccuracies highlight the need for training among authors, peer reviewers, and editorial teams to improve referencing consistency. Implementing strict verification measures and providing clear referencing support such as engaging information scientist and embedded video tutorials can help mitigate these errors.

Keywords: Errors, References, Kenya Eye Health Journal.

Introduction

Scholarly writing facilitates scientific communication of new knowledge as well as review of current knowledge and reflection on explicit or implicit assumptions (1). Authors of published papers 'stand on the shoulders of giants' such as other researchers through reviewing, citing and referencing existing knowledge, so that publications are informed by prior studies (2). References constitute a comprehensive list of information sources that have been consulted and cited in the course of writing an article, enabling readers to locate and verify the cited material. They serve to map the diverse sources of information relevant to a specific question, acknowledge original contributions to knowledge and validate concepts (3-5). In addition, referencing contextualizes knowledge, builds

upon existing scholarly work, enhances credibility, and guides readers on additional reading (6).

Accurate referencing requires objectivity, rigor, and the application of specific and up-to-date referencing skills and adherence to reference guidelines (7). The quality of referencing is an important consideration in the quality of a piece of scientific writing and its acceptance for presentation or publication. Inadequate, incomplete, inaccurate, or outdated references are among the primary reasons for manuscript rejection by publishers of scholarly work (8). Errors in references also imposes additional time requirements in the publication process (including review and editorial work), inefficiencies and extra costs to researchers, information centers and libraries, as well

as confusion and misinformation to readers (2, 3). Minor errors in referencing include single spelling errors that may not affect the identification or retrieval of the information sources. In contrast, major inaccuracies in titles of journals or books, publication years, volume, issue no or page numbers can hinder the accurate location and retrieval of sources (2, 9, 10). Such major errors interrupt the link between cited works and their corresponding references, potentially leading to misinformation and raising concerns about the credibility of a publication (2).

Performing systematic robust checks for referencing errors in journal article references is crucial in the publication process of a journal. Accurate references support the validity of published papers, facilitates efficient retrieval of the cited sources and upholds the credibility of the authors, editorial boards, and publishers (6). Despite this, verification of reference errors is not uniformly implemented through standard procedures in most journals (6). Buchan, Norris, and Kuper, while assessing reference accuracy in ophthalmic literature found that journal that implemented clear verification checks had lower frequencies of referencing errors in their publications. Notably, their study revealed some journals recorded no errors as they employed a librarian to verify references. Journals that utilized an automated reference-checking program and recorded an error rate of 10% (11).

Although accuracy in referencing is vital for maintaining the integrity and reliability of scholarly publications, it remains under-researched. The Kenya Eye Health Journal (KEHJ) is a young journal which produced its first issue in November 2024. Recognizing the importance of validation checks to inform future publications of the journal, we evaluated the accuracy of references in Issue 1 of KEHJ, against the referencing guidelines prescribed by the journal.

Methods

We obtained print and digital copies of Issue One of the Kenya Eye Health Journal from the Kenya Medical Training College (KMTc) Library and KEHJ, respectively. This issue featured seven articles, each referencing various sources, all of which were analyzed. References from each article were extracted into a Microsoft Excel template developed by NG for this analysis and pretested by NM. The template included a primary column for the reference (as copied from the article's reference list). The full text of the original referenced sources was then retrieved through an online search using Google, Google Scholar, and Hinari. Additionally, books and book sections were searched in the National Library of Medicine (NCBI). The search was conducted independently by NG and NWM.

Each cited source was categorized by type of publication (journal article, book, or other). The information provided

in the KEHJ reference list was compared to the information provided in the original source (through observation) for in key bibliographic elements: (i) author list, (ii) title, (iii) year of publication, (iv) place of publication, (v) journal name (or publisher for books, or organization for web pages), (vi) issue and volume number, (vii) page range, (viii) digital object identifier (DOI) or URL link. Compliance to the Vancouver referencing style, which is recommended in the guidelines for authors by KEHJ, was also evaluated.

All errors were recorded on the template and analyzed through simple descriptive statistics. The study examined published data that is in the public domain and did not require ethics approval.

Results

The Kenya Eye Health Journal Issue 1 had seven articles with a number of references ranging from 7 to 22 (Table 1).

Table 1: Distribution of references per article

SN	Reference	Frequency	Percentage
1.	Article 1	22	25%
2.	Article 2	17	19%
3.	Article 3	7	8%
4.	Article 4	9	10%
5.	Article 5	9	10%
6.	Article 6	7	8%
7.	Article 7	18	20%
Total		89	100%

The 89 references were sourced from a range of information resources, with journal articles constituting the most frequently cited (Figure 1). Both peer-reviewed scientific literature and grey literature were referenced. All the references were analyzed for errors.

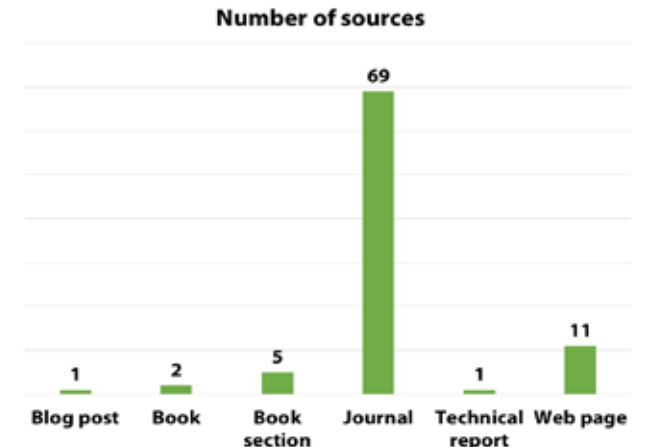


Figure 1: Number of reference sources

The KEHJ recommends use of Vancouver referencing style, but 39/89 (44%) references, did not adhere to the Vancouver style. Notably, 2/7 articles comprising 25/89(28%) references did not use the Vancouver style. Despite 50/89 (56%) references, from 5/7 articles applying the Vancouver referencing style, 15/50 (30%) had inaccuracies.

Table 2 provides information on the errors for each category of information sources.

Table 2: Errors in bibliographic elements of different reference sources

Reference source	Total	Author list	Year of publication	Place of Publication	Reference resource publisher	Issue/Volume number / Edition	Page range
Blog post	1	1(100%)	1(100%)		1(100%)		
Book	2	-	-	-	-	-	-
Book section	5	-	2(40%)	2(40%)	-	-	-
Technical report	1	-	-	1(100%)	-	-	-
Journal	69	14(20%)	4(6%)		3(4%)	8(12%)	8(12%)
Web page	11	8(73%)	8(73%)		4(36%)		
Total	89	23(26%)	15(17%)	3(38%)	8(9%)	4(6%)	8(10%)

Key: Gray = Not applicable for this category of sources; - means no errors.

Errors were identified in various bibliographic elements of references, including the author list (misspellings, incorrect order, missing names or initials), publication year (incorrect or missing year), and publication details such as the place of publication, journal name, publisher, or website (missing or incorrect information). Additionally, volume and issue numbers, as well as page numbers, were often missing or erroneous. Notably, 45 out of 89 sources (51%) lacked either a digital object identifier (DOI) or a uniform resource locator (URL) despite being primarily online sources, highlighting a significant gap in completeness. Only 28 (31%) were accurately referenced with no DOI or URL errors.

Discussion

The main aim of this study was to examine the accuracy of references in the KEHJ Issue 1 of November 2024. An important strength of the paper is that the evidence we have provided is timely, given that the journal can use it to strengthen all future publications. A second strength is that the study provides evidence that is generally lacking in the literature. The main limitation is that this is a single issue or a single journal, which limits generalizability.

There was a wide range of 7-22 references per article published in KEHJ. The journal guidelines do not specify a particular minimum or maximum number of references. We cannot comment on the balance between having sufficient references and having unnecessary references, since we did not compare the paper length (or word count) to the number of references. The journal may consider providing a guideline for authors on the expected number of references for different types of articles. The sources of references included primary research (journal publications), secondary data (in textbooks) and gray literature (technical reports, blog posts and web pages).

While the KEHJ explicitly recommends use of Vancouver

referencing style, the adherence to this reference style was not universal, and a significant number of the references applying this style did not apply it accurately and consistently. Similar low compliance to the referencing guidelines have been found in university theses and journal publications (2). The evaluation of the factors associated with the discrepancy between the recommendations in the guidelines and actual implementation by authors was beyond the scope of this evaluation. However, this discrepancy could point to ongoing challenges faced by authors, such as inadequate training on referencing styles or the need for step-by-step guidelines on the correct way of Vancouver referencing. It also points to the need for a mechanism for reference checking as part of the editorial process for standardization and uniformity.

Consistent with findings from other studies, inaccuracies in references have been observed in published articles (6). In this study, errors were identified across various reference sources, including missing information (incompleteness), typographical mistakes (e.g., spelling errors), and incorrect sequencing of elements (formatting issues). Possible causes of these errors include confusion between the Vancouver referencing style and similar citation styles, copying and pasting citations from existing databases or articles (which may contain errors or follow a different format), and inadequate validation at the point of reference entry. To mitigate these issues, we recommend that authors verify references against the original source rather than relying on references from other authors. This essential skill can be effectively addressed in manuscript writing workshops.

The peer-review process and the editorial process have important roles and responsibilities in providing a further quality check on the references. However, the peer reviewers and editors work within very short timelines, which may limit their capacity to review both the technical content

and the accuracy of references. Further, the reviewers and editors may require training support on the referencing and other skills that information specialists may have. As the journal grows, it may consider sourcing for information specialists to provide editorial services. In addition, the journal may source for automated reference checkers.

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