

# There was less self-critique among basic than in clinical science articles in three rheumatology journals

Hasan Yazici<sup>a,\*</sup>, Feride Gogus<sup>b</sup>, Fehim Esen<sup>c</sup>, Yusuf Yazici<sup>d</sup>

<sup>a</sup>Ethics Committee, University of Istanbul, Beyazit Yerleskesi, Beyazit, Istanbul 34116, Turkey

<sup>b</sup>Department of Physical Medicine and Rehabilitation, School of Medicine, Gazi University, Emniyet Mahallesi, Ankara 06560, Turkey

<sup>c</sup>Department of Ophthalmology, School of Medicine, Marmara University, Basibuyuk Yerleskesi, Maltepe, Istanbul 34854, Turkey

<sup>d</sup>Department of Medicine (Rheumatology), NYU Hospital for Joint Diseases, 333 East 38th St, New York, NY 10016, USA

Accepted 25 October 2013; Published online 16 January 2014

## Abstract

**Objectives:** There is concern that self-critique with authors acknowledging limitations of their work is not given due importance in scientific articles. We had the impression that this was more true for articles in basic compared with clinical science. We thus surveyed for the presence of self-critique in the discussion sections of the original articles in three rheumatology journals with attention to differences between the basic and the clinical science articles.

**Study Design and Setting:** The discussion sections of the original articles in January, May, and September 2012 issues of *Annals of the Rheumatic Diseases*, *Arthritis and Rheumatism*, and *Rheumatology* (Oxford) were surveyed ( $n = 223$ ) after classifying each article as mainly related to clinical or basic science. The discussion sections were electronically scanned by two observers for the presence of the root word “limit” or its derivatives who also read each discussion section for the presence of any limitations otherwise voiced.

**Results:** A limitation discussion in any form was present in only 19 (20.2%) or 29 (30.1%) of 94 basic science vs. 95 (73.6%) or 107 (82.3%) of 129 clinical science articles ( $P < 0.0001$  for either observer).

**Conclusion:** Self-critique, especially lacking in basic science articles, should be given due attention. © 2014 Elsevier Inc. All rights reserved.

**Keywords:** Self-critique; Limitations; Acknowledging limitations; Basic science; Clinical science; Article discussion sections

## 1. Introduction

An honest self-critique is or should be an important component of scientific output. In reading a scientific article, the reader deserves to have a sound idea of the internal and external validities of what is being proposed, and the authors are usually the ones who know best the shortcomings of their articles. On the other hand, the same authors may shy away from acknowledging and discussing the weaknesses of their work to successfully pass unharmed the peer review process [1]. As such, it has been pointed out that limitations are not adequately acknowledged in scientific articles [1–3]. Although explicitly underlined in some authorship guidelines [4,5], we had the impression that many journal articles in rheumatology

did not give the said acknowledgment due importance. We were also unaware of any formal attempts to quantify this contention specifically related to the rheumatology literature. We furthermore had the impression that self-critique was even less frequent in the basic than clinical science articles. With the primary aim of formally testing the latter contention, we set out to comparatively quantify self-critique in clinical and basic science articles in three widely read rheumatology journals.

## 2. Methods

The January, May, and September 2012 issues of *Annals of the Rheumatic Diseases* (ARD), *Arthritis and Rheumatism* (AR), and *Rheumatology* (RO; Oxford) were selected from the journal Web pages. Only articles under the depiction “original” on the Web pages were surveyed. These articles were first surveyed by two independent observers [observer 1 (F.G.) and observer 2 (H.Y.)] to assess whether they were of mainly basic or clinical science content. The discussion sections were then electronically separated by

Conflict of interest: This work has not been funded by any source and the authors do not acknowledge any conflicts of interest.

\* Corresponding author. Tel./fax: +90-216-3456036.

E-mail address: [hasan@yazici.net](mailto:hasan@yazici.net) (H. Yazici).

**What is new?****Key findings**

- In 223 original articles published in three leading rheumatology journals, self-critique in any form was found in 114 (51%) or 136 (61%) according to each of the two observers. Furthermore, the proportion of basic science articles which included a self-critique was markedly less than that observed among the clinical science articles, 20% or 30% compared with 74% or 82%.

**What this adds to what was known?**

- Although specifically not studied among the rheumatology publications, the observation that self-critique may be lacking in many scientific publications had previously been made. This is further brought up here. However, the significantly less self-critique among the basic compared with the clinical science articles is shown for the first time.

**What is the implication and what should change now?**

- It is clear that authors and journals should be more particular about self-critique, a must in scientific communication. The issue needs special attention among the authors of basic science articles. Authorship guidelines and journal manuscript requirements should put a heavier emphasis on self-critique and perhaps even ask for obligatory separate manuscript sections to meet this goal.

another observer (F.E.) after which the initial two observers electronically scanned them to assess whether the root word “limit” and/or its derivatives (ie, limits, limitations, etc.) (limit.der) were ever used. The sum of limit and limit.der use made up L. The observers also noted whether these words, when used, implied self-critique. In addition, observers 1 and 2 read through each discussion section for the presence of any sentences by which the authors had expressed self-critique under a designation other than a limitation. This was tabulated as the presence of any limitation discussion (ALD). Thus, ALD included the electronically observed limitations (Ls) in the final tabulation.

A fourth author (Y.Y.), the arbiter, had the final say in instances in which the initial two observers disagreed whether an article had mainly clinical or basic science content, unaware of the limitation assessments. After the analyses of expression of the self-critique data strictly based on the arbiter’s classification, a final tabulation was also made whether the arbiter’s classification was concordant with the journal’s official classification of

the article type. This appeared on the content pages of ARD and RO but not that of AR.

All statistical comparisons between the basic and clinical science articles, which voiced limitations in either form, L or ALD, were done by chi-square tests if all expected values in a  $2 \times 2$  table were five or more. Otherwise, a Fisher exact test was used. All observations were analyzed separately for either observer, whereas findings in each journal were analyzed both separately and after taking the totals of all three journals.

**3. Results**

A total of 223 articles (ARD: 68; AR: 90; and RO: 65) were surveyed (Table 1). In 34 (15.2%) of 223 articles, there was a disagreement between the two observers in classifying whether the article was primarily a basic or clinical science article. The frequencies of discordance between the two observers and the total concordance are given in Appendix at [www.jclinepi.com](http://www.jclinepi.com) where it is seen that the median concordance between the two observers was 84.2% (range, 77.8–85.7%). The arbiter’s final classification was concordant with the journal’s official classification in 65 (95.6%) of 68 articles in ARD and in 65 (92.3%) of 60 in RO. After allocation by the arbiter, 129 (57.8%) of 223 articles were considered as primarily clinical and 94 (42.2%) of 223 as basic science content, which were used in all data analyses thereafter.

Table 1 shows the distribution of the frequencies of the presence of the root word “limit” or “limit.der” at least

**Table 1.** Number (%) of articles containing self-critique according to the article type, by two observers in three journals

Journal	n	Observer 1		Observer 2	
		L <sup>a</sup>	ALD <sup>b</sup>	L <sup>a</sup>	ALD <sup>b</sup>
ARD					
Basic	27	4 (14.8)	8 (29.6)	4 (14.8)	8 (29.6)
Clinical	41	27 (65.8)	31 (75.6)	27 (65.8)	34 (82.9)
Total	68	31 (45.6)	39 (57.3)	31 (45.6)	42 (61.8)
AR					
Basic	49	2 (4.1)	5 (10.2)	2 (4.1)	12 (24.4)
Clinical	41	26 (63.4)	29 (70.7)	25 (61.0)	35 (85.4)
Total	90	28 (31.1)	34 (37.8)	27 (30.0)	47 (52.2)
RO					
Basic	18	5 (27.8)	6 (33.3)	4 (22.2)	9 (50.0) <sup>a</sup>
Clinical	47	28 (60.0)	35 (74.5)	30 (63.4)	38 (80.8)
Total	65	33 (50.8)	41 (52.3)	34 (52.3)	47 (72.3)
Total					
Basic	94	11 (11.7)	19 (20.2)	10 (10.6)	29 (30.1)
Clinical	129	81 (62.7)	95 (73.6)	82 (63.4)	107 (82.3)
Total	223	92 (41.2)	114 (51.1)	92 (41.2)	136 (61.0)

*Abbreviations:* ALD, any limitation discussion; ARD, *Annals of the Rheumatic Diseases*; AR, *Arthritis and Rheumatism*; RO, *Rheumatology* (Oxford).

All frequency comparisons between the basic and clinical science articles in each journal and for the total of all articles were statistically significant at  $P \leq 0.02$ .

<sup>a</sup> L: the word “limit” or “limit.der” present (by electronic scanning only).

<sup>b</sup> ALD: any limitation discussion present, including L.

Download English Version:

<https://daneshyari.com/en/article/10513518>

Download Persian Version:

<https://daneshyari.com/article/10513518>

[Daneshyari.com](https://daneshyari.com)