From 1994 to 1995 through 1996 to 1997, 61 (46%) of the 133 authorship issues were from faculty and 45 (34%) were from postdoctoral fellows, interns, or residents. Of these issues, 70 (53%) originated from female complainants and 63 (47%) from males. However, the female complaints represented an average of 0.35% of their smaller average population while male complaints represented only 0.20% of theirs.

The total non-US citizen population of faculty, staff, trainees, and students is not available. However, cases including acknowledgment through publication have grown from 4% of the non-US citizen complaints in 1991-1992 to 21% in 1996-1997.

COMMENT

The increase in reported authorship disputes has been far greater than the increase in either total issues brought to the Ombuds Office or in the size of the population served. It occurred despite the Harvard Medical School’s school-wide guidelines. Females report more difficulties than males. Non-US citizens may have similar problems coping with the credit assignment system.

With the absence of other similar published evidence, it is only a supposition that similar phenomena are occurring at other medical research institutions. My suggestions reflect an assumption that these problems are widespread in the “culture of credit.” Some suggestions as to what would reduce the incidence and impact of authorship conflict are as follows:

1. Departments should establish their own detailed, written guidelines on authorship practices and make them available to everyone. These guidelines should be discussed both prior to the onset of a relationship and regularly so that people are comfortable asking questions about their work and how it will be credited.

2. It is unreasonable for institutions to promise that they can protect individuals from retaliation for coming forward to complain through formal grievance procedures. Therefore, informal confidential channels, such as an Ombuds Office, can offer an important mechanism to encourage corrective action by management without compromising an individual.

3. Discussions about achieving credit for research are best done within the research unit. This suggests training department heads to better manage the credit allocation process.

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What Are the Factors Determining Authorship and the Order of the Authors’ Names?

A Study Among Authors of the Nederlands Tijdschrift voor Geneeskunde (Dutch Journal of Medicine)

Wendela P. Hoen, MD; Henk C. Walvoort, DVM, PhD; A. John P. M. Overbeke, MD, PhD

Context.—Although criteria justifying authorship of scientific medical articles have been formulated, it is not well known how authorship is established in practice.

Objectives.—To assess the criteria for authorship used by authors of original articles in Nederlands Tijdschrift voor Geneeskunde (NTVG, the Dutch Journal of Medicine), and to determine whether the criteria for authorship of the International Committee of Medical Journal Editors (ICMJE) are known and applied.

Design.—Survey questionnaire.

Setting.—Editorial office of the NTVG.

Participants.—All 450 authors of 115 original articles published in 1995.

Main Outcome Measures.—Author’s contribution to study design, material, collection of data, statistics, and writing.

Results.—Of 362 forms returned, 352 could be analyzed (78.2% response rate). The 5 questions most frequently answered affirmatively were ICMJE criteria: critical reading (86.1% of the authors), approval of the final version (84.7%), study design (74.7%), study conception (64.2%), and revision (63.4%). Authors rated their contribution 2 points higher than did their coauthors. Interestingly, 64% of the respondents met the ICMJE criteria, although 60% of the respondents did not know them.

Conclusion.—Authorship was mostly in accordance with ICMJE criteria although many authors were not familiar with them.
to determine whether an author per-

North of the United States... 

Materials and Methods: 

Taking into account the number of re-

Applied to the United States... 


tion of the results.

The answers showed that 63.6% of the

Many authors considered the rules to be too strict. The biggest problem was the failure to appreciate clinical work. According to many clinicians, provision and care of the patients are sufficient criteria for authorship. Because the NTVG is a medical journal, most authors are clinicians, and their opinions most likely biased this investigation (eg, in contrast with statisticians).

Our investigation confirms that the ICMJE criteria are insufficiently known. However, many authors appear to apply them implicitly. Confusion regarding authorship could be reduced by making the criteria more widely known.

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terpretation in various ways, an appeal was being made to the memory of the participants after a considerable length of time. The International Committee of Medical Journal Editors (ICMJE) set the bar at 80.4% and the small discrepancy between the respondents’ and their coauthors’ answers allows a good interpretation of the results.

METHODS

Authors (N = 450) of all original articles (N = 115) published in the NTVG in 1995 were mailed a questionnaire enclosed with a copy of the first page of their article. Anonymity was guaranteed and a small monetary compensation was offered. A reminder was mailed after 1 month. Articles with 1 or 2 authors were excluded because we did not expect to find many problems with authorship in these articles. The NTVG does not publish articles with more than 6 authors.

The questionnaire included 23 questions and was designed to determine whether and to what extent the ICMJE criteria had been applied in practice, regardless of whether the authors were familiar with these criteria. The authors were asked to score themselves and their coauthors on their contributions to study design, material, collection of data, statistics, and writing, using only plus, minus, or question mark symbols. The questionnaire also contained opened-ended questions to determine whether authors were familiar with the ICMJE criteria for authorship. The main subject of each question is listed in the Table.

To determine whether an author perceived his or her own contributions differently than the coauthors perceived them, the number of positive answers an author gave himself or herself was totaled and compared with the mean total score the author had received from each of the coauthors. The difference could vary be-

RESULTS

Of the 450 questionnaires, 362 (80.4%) were returned and 352 (78.2%) could be analyzed. Contributions the authors considered themselves to have made are shown in the Table.

The discrepancy scores had a Gaussian distribution with the top score at 2 (ie, most authors thought that they had contributed to 2 items more than their coauthors thought); the fifth and 95th percentiles scored –4 and 8, respectively.

The ICMJE criteria were fulfilled by 224 (63.6%) of 352 authors (according to their own scores), regardless of whether they were familiar with them; 79% of the first authors fulfilled the criteria and 56% of other authors fulfilled them. However, in 46 (21%) of 220 authors who fulfilled the criteria according to their own scores, more than 50% of the coauthors reported that the author did not fulfill the criteria. (In the other 4 cases, no coauthors replied.)

Of the 352 total respondents, 128 did not fulfill the ICMJE criteria according to their own scores. The most important contributions of these authors were critical reading of the manuscript (77%), providing the patients (63%), approving the final version of the paper (58%), collecting data (53%), and patient care (51%).

Most authors (202 [59.8%] of 338) stated they did not know the ICMJE criteria: 61% of first, 44% of the last, and 66% of the intermediate authors. In 70% of the articles, at least 1 author indicated that he or she knew the criteria.

Most respondents reported that there had been problems in determining authorship and the authors’ order. A particular source of dispute was that clinical work alone is insufficient for authorship.

COMMENT

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