

# Authorship Issues at a New Zealand Academic Institution

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## Abstract

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**Background:** Authorship of peer-reviewed publications can create conflict among academics.

**Objective:** To document authorship conflicts of academics at a tertiary faculty.

**Methods:** An anonymous questionnaire eliciting authorship conflicts and knowledge of authorship criteria was administered online to 154 academic staff members at a New Zealand university.

**Results:** 43 academics responded, a response rate of 27.9%. About half of the academics reported authorship conflicts, mainly regarding ownership of data, gift authorship and academic competition. Of the 43 academics, 31 were aware of formal authorship criteria but only 21 could identify the appropriate source. 23 academics correctly identified all the appropriate criteria for authorship according to the *International Committee of Medical Journal Editors* guidelines.

**Conclusion:** Authorship conflicts are prevalent in a New Zealand university that may be related to lack of knowledge of authorship criteria.

**Keywords:** Authorship; Guidelines; University; Conflicts; Criteria

## Introduction

Authorship of peer-reviewed publications has created much conflict and debate in academia.<sup>1-6</sup> For academics, publication of research is the key to the “Three P’s:” Prestige, Promotion and Pay. This in past has led to misappropriation of authorship, including “gift authorship,” where those who are granted co-authorship have not contributed sufficiently to the work to justify their authorship status.<sup>2</sup>

Studies have shown that many academics are unaware of the Uniform Requirements for Manuscripts Submitted to Biomedical Journals published by the *International Committee of Medical*

*Journal Editors (ICMJE)*.<sup>1,3,5,7</sup> The *ICMJE* guidelines defines authorship as meeting all of the following three conditions: 1) substantial contribution to study conception and design, data acquisition, analysis, or interpretation; 2) drafting or revising the article critically for important intellectual content; and 3) approval of the final version to be published.<sup>7</sup> Collection of data, acquisition of funding or general supervision of the research group alone does not qualify authorship but may qualify him or her for acknowledgement. The guidelines also specify that each author should have contributed sufficiently to the work to take public responsibility for appropriate sections of the content. Furthermore, all persons who are named as authors should

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qualify for authorship, and all of those who qualify should be listed.

To our knowledge, no study on authorship issues has been published from New Zealand. We therefore studied authorship criteria awareness and knowledge at an academic institution in one New Zealand university.

## Materials and Methods

This cross-sectional study was targeted at academic staff from junior lecturer to professor at the University of Otago, Wellington (UOW), New Zealand. A slightly modified pre-tested and validated questionnaire was used to gather information on academics authorship issues experiences and knowledge of authorship criteria.<sup>1</sup> The exact questions used are shown in Appendix. Data was collected from November 26, 2009 to January 22, 2010.

All eligible academics were e-mailed and invited to participate in this online questionnaire-based survey. The purpose of the study was explained and anonymity assured. All responses were gathered by a “Google Documents” spreadsheet. Follow-up attempts were made by e-mail and posters in the first half of December 2009. The study was reviewed and ethically approved by the Department of Medicine, UOW. All respondents gave written informed consent.

The primary variables of interest were conflicts caused by authorship issues and the degree of awareness of authorship criteria for peer-reviewed publications. Reasons for conflict were categorized into a) conflict over ownership of data, b) conflict over gift authorship, and c) conflict over other issues.

An exact proportion test was used to test for statistical significance with a cut-off value of  $p=0.05$ . The analysis was carried out using “R” version 2.10.1 ([www.r-project.org](http://www.r-project.org)).

### TAKE-HOME MESSAGE

- Authorship of peer-reviewed publications has created conflict possibly due to lack of awareness of authorship criteria.
- About half of academics at a New Zealand university reported authorship conflicts, mainly regarding ownership of data, gift authorship or academic competition.
- There appeared to be a lack of knowledge of authorship criteria that might have impacted on authorship conflicts.
- It would be beneficial for academic institutions to have explicit documented authorship guidelines and a formal process for resolving authorship problems.

## Results

Forty-three academics (24 female) responded resulting in a 27.9% response rate. Six were Professors/Associate Professors, 26 were senior academics (Senior Lecturer or Senior Research Fellow) and 11 were junior academics (Lecturer/Junior Lecturer or Research Fellow/Junior Research Fellow). This was out of a total of 154 academics at UOW, comprised of 24 Professors/Associate Professors, 77 senior academics and 53 junior academics. The number of peer-reviewed publications academics reported ranged from zero to more than 200.

Of the 43 responding academics, 22 reported conflict over authorship issues, of whom, 12 reported more than one area of conflict. Conflict was reported more if the respondent was not named a co-author of a paper they thought they should have been (43 comments by 16 academics) than if the respondent was the first author of a

**Table 1:** Conflict arising out of a paper in which the respondent was first author (n=11)

Reason for conflict (18 comments)	Number of comments
<b>Conflict over ownership of data</b>	
1. Inappropriate attempts by others to be first author	2
2. Not giving deserving investigator authorship	1
3. With someone who critically reviewed the study proposal	1
<b>Conflict over gift authorship</b>	
4. Others expected authorship as they:	
i. Provided scientific advice	1
ii. Were Head of Department so wanted unproductive person to be co-author	1
iii. Had a common area of interest	3
<b>Conflict over other issues</b>	
5. Academic competition	4
6. Personality differences	2
7. Uncertainty of process allocating authorship	1
8. Equal work distribution so debate over first author position	1
9. Journal not allowing corporate authorship as planned	1

Note: Three (27%) academics experienced multiple areas of conflict.

paper (18 comments by 11 academics). Tables 1 and 2 show the reasons for conflict they experienced.

About three-quarter (n=31) of respondents were aware of the existence of formal authorship criteria but only about half (n=21) were able to identify the appropriate source. Of these, 13 specified the Vancouver Guidelines and eight specified the ICMJE criteria.

Only four academics stated that they were aware of any documented authorship guidelines at the UOW. All, except one, either did not know its source. Three academics stated that their research

group had a documented authorship policy, however none were specified. Twenty-five academics stated that their research group had no authorship policy, while 15 were unsure.

Twenty-three academics correctly identified all three appropriate criteria for authorship as dictated by the ICMJE guidelines. Only one respondent provided correct responses for all scenarios, whilst the majority incorrectly identified what constituted acknowledgement or authorship. Five out of six Professors/Associate Professors correctly identified what justified authorship while 14 senior academics and only four junior academics could correctly identify what qualified authorship. No statistically significant difference was found for academic status (data not shown). Table 3 shows the list of criteria that academics accepted for authorship.

Sixteen respondents reported giving a junior researcher first authorship even if the respondent was fully involved in all stages of the work prior to the junior researcher's involvement. There was no statistically significant difference between giving a junior researcher authorship and correctly identifying authorship criteria or seniority status (data not shown).

## Discussion

About half of UOW academics reported authorship conflicts, with half of these reporting multiple areas of conflict. Like the study by Dhaliwal, *et al*,<sup>1</sup> conflict was broken down into two main scenarios, namely where the respondent was the first author of a paper and where they thought they should have been named a co-author of a paper but were not. Conflicts related to ownership of data, gift authorship and conflict over other issues. Interestingly the most common "other issue" causing conflict was academic competition, with four academics that were first authors

reporting they felt a co-author was inappropriately included in their article. Reasons for conflict were similar to the study by Dhaliwal, *et al*, where some academics thought they should have been named a co-author but were not.<sup>1</sup> Many of these reasons are not supported by the *ICMJE* criteria for authorship. For example, six UOW academics believed caring for study patients/participants justified authorship. Additionally, seven UOW academics believed their critical review of the study proposal would justify authorship and this would be true according to the *ICMJE* guidelines if they also satisfied the other two criteria, which we could not ascertain from the questionnaire.

Four academics cited personality differences as a reason for being excluded as a co-author. This is similar to the Indian study by Dhaliwal, *et al*,<sup>1</sup> suggesting evidence of exclusion based on researchers personal interactions. Over a third of academics had “gifted” a junior researcher first authorship. It is heartening to know that some senior researchers will forego first authorship in order to advance a junior researcher's career.

Our study has shown that academics at the UOW had little awareness of formal authorship criteria, with only about half of them being able to identify any source of guidance for guidelines. Additionally, only about half of them correctly identified appropriate criteria for authorship as dictated by the *ICMJE* guidelines. Various scenarios were used in the questionnaire to determine what academics believed justified authorship. More senior academics were more likely to correctly identify what constitutes authorship, although this was not statistically significant. This trend is consistent with the increased knowledge of authorship criteria that would be expected with career progression and publication.

Of the various scenarios presented in

**Table 2:** Conflict arising out of a paper in which the respondent was not named a co-author, reported by 16 academics

Reason for conflict (43 comments)	Number of comments
<b>Conflict over ownership of data</b>	
1. Retrospective study: you had cared for some study patients/participants	4
2. Prospective study: you had cared for some study patients/participants	2
3. Sufficient work done you thought justified authorship	5
4. You critically reviewed the study proposal	7
<b>Conflict over gift authorship</b>	
5. You expected authorship as you:	
i. Provided scientific advice	9
ii. Had named the chief investigator co-author in one of your papers previously	2
iii. Had a common area of interest	6
iv. Being the departmental head, you provided general support	1
<b>Conflict over other issues</b>	
6. Personality differences	4
7. Authorship was agreed when the grant was written then challenged	1
8. Intellectual passion	1
9. Disagreement on authorship criteria	1

Note: Ten (63%) of these respondents experienced multiple areas of conflict.

the questionnaire, six were qualified as authorship as dictated by the *ICMJE* guidelines and most were correctly identified as such by academics. However, an additional seven scenarios were also accepted by many academics as justifying authorship which, according to the *ICMJE* guidelines, would only qualify for “Acknowledgements.” For example, about a quarter of academics thought that providing writing assistance justified authorship.

Our study results compare to a simi-

**Table 3:** Criteria for authorship accepted by 43 respondents

Criteria	Respondents, n (%)
Study conception and design	41 (95%)
Analysis and interpretation of data	40 (93%)
Drafting the article	39 (91%)
Substantial acquisition of data for the study	37 (86%)
Approving the final version for submission	35 (81%)
General supervision of the research project	29 (67%)
Revising the article	28 (65%)
Providing writing assistance	10 (23%)
General supervision of the research group	10 (23%)
Acquisition of funds	9 (21%)
Routine collection of data	7 (16%)
Providing care for the study patients/participants	1 (2%)
Providing technical help	1 (2%)

Note: *ICMJE* criteria for authorship are given in bold

lar study done at an Indian academic institution, with UOW academics accepting similar criteria for authorship.<sup>1</sup> However, academics at UOW were more likely to accept “acquisition of funding” as authorship. Academics at the Indian institution were more likely to believe that general supervision of the research group, providing care for study patients/participants and providing technical help as justifying authorship.<sup>1</sup>

A limitation of our study was the low response rate (27.9%). Likely contributing factors were the short time frame in which the study was carried out and the overlap of our study with the holiday break over the Christmas period and annual leave. The study was also started when the academics were in the final week of exam marking. Thus, responses may not be fully representative of all academics at UOW. Furthermore, results of our study may also not be representative of the other

two Medical Schools of Otago University (Dunedin and Christchurch), the University of Otago as a whole or other academic institutions in New Zealand. However, the main purpose of the study was to qualitatively elicit issues of concern regarding authorship conflicts among academics.

Another limitation of our study was possible misinterpretation of aspects of the questionnaire. An example of this was where about one third of respondents thought that general supervision of the research project qualified as authorship. In retrospect this could have been misinterpreted by respondents as they may have thought this scenario implied other tasks constituting authorship were carried out as dictated by the *ICMJE* guidelines.

In conclusion, authorship conflicts are common at a New Zealand academic faculty with a number of academics having experienced conflicts relating to authorship issues at some point in their careers. Furthermore, there appeared to be a lack of knowledge of authorship criteria that might have impacted on authorship conflicts. It would be beneficial for academic institutions to have explicit documented authorship guidelines and a formal process for resolving authorship problems.

**Conflicts of Interest:** None declared.

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## Appendix

### Authorship Criteria: Knowledge and Attitudes of Academic Staff Questionnaire

- Are you aware of the existence of formal criteria to determine authorship of peer-reviewed articles? Yes/No
- If yes, please name the document and its source.
- Do you know if the UOW has documented authorship guidelines? Yes/No/Not Sure
- Does your research group or department have a written authorship policy? Yes/No/Not Sure
- Of the following contributions which do you think entitles a person to be cited under “Authorship”, “Acknowledgement” or “Neither”:
- General supervision of the research group
- Routine collection of data
- Acquisition of funds
- Study conception and design
- Head of Department
- Substantial acquisition of data for the study
- Providing care for the study patients/participants
- Analysis and interpretation of data
- Approving the final version for submission
- Providing technical help
  - General supervision of the research project
  - Providing writing assistance
  - Personal relationship with the principal investigator
  - Similar field of interest
  - Drafting the article
  - Working in the same unit/department
  - Revising the article
- Have you ever experienced conflict over authorship issues with a paper for which you were the first author? Yes/No/Not Applicable/Have not been a first author
- Have you ever given first authorship to a junior researcher/student because it would help their CV even if you were fully involved in all stages of the work including prior to their involvement? Yes/No
- Have you ever experienced conflict over authorship issues with a paper where you felt you should have been named a co-author but were not? Yes/No