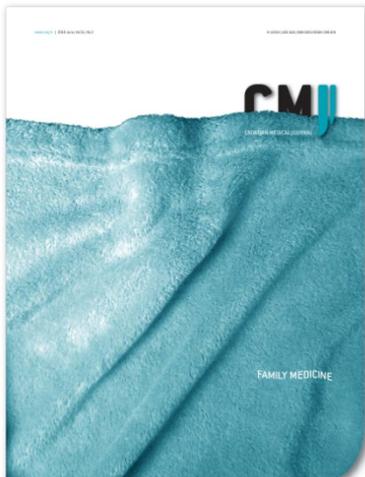




## Systematic review of research on authorship across scientific disciplines



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*Croatian Medical Journal*



COMMITTEE ON PUBLICATION ETHICS

## Research project funded by COPE

### 1. Survey:

- a) Codes of ethics from different institutions and bodies
- b) Journals/publishers' guidelines

### 2. Systematic review of research on authorship

# Codes of ethics – professional societies, corporations, government and academic institutions

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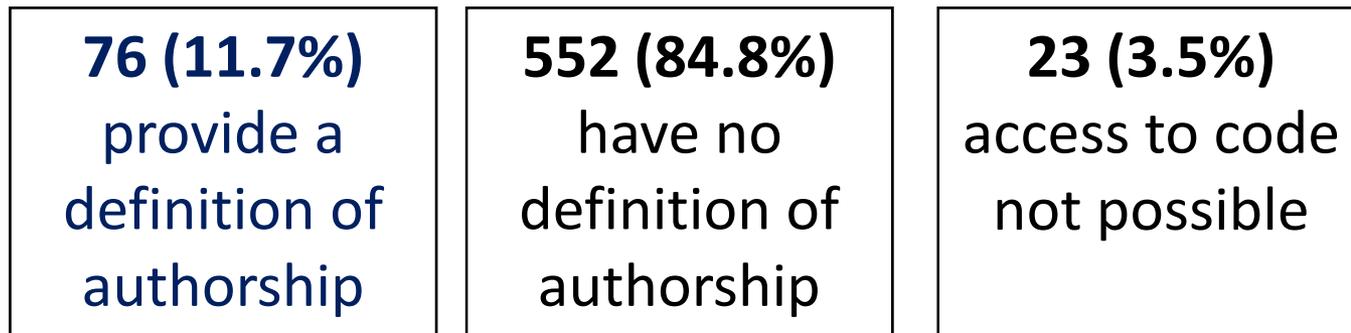
British Panel Clears Climate Scientists

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<http://ethics.iit.edu/codes/>

# Codes of ethics

**651 non-overlapping entries**  
Search terms: "authorship" or  
"publication credit" or "contribution"



# Codes of ethics with statements on authorship (n=76)

Statement(s) regarding*	No. (%)
Giving proper credit (nonspecific statement)	56 (73.7%)
Criteria for authorship	20 (26.3%)
Honorary, gift or ghost authorship	1 (1.3%)
Including all persons who merit authorship (includes statements on acknowledging all personnel's contributions)	18 (23.7%)
Order of authorship	8 (10.5%)
Authors take responsibility for work/obtain consent to publish from all authors	2 (2.6%)

\*According to Rose MR, Science Editing & Information Management, 1999

# Order of Authorship

American Educational Research Association –

First authorship and order of authorship should be the consequence of relative creative leadership and creative contribution. Examples of creative contributions are: writing first drafts or substantial portions; significant rewriting or substantive editing; and contributing generative ideas or basic conceptual schemes or analytic categories, collecting data which require significant interpretation or judgment, and interpreting data.

# Order of Authorship

American Counseling Association –

The principal contributor is listed first...

American Psychological Association –

Except under exceptional circumstances, a student is listed as principal author on any multiple-authored article that is substantially based on the student's doctoral dissertation.

# Order of Authorship

## Australian Psychological Society –

Psychologists usually list the student as principal author on any multiple-authored article that is substantially based on the student's dissertation or thesis.

## Christian Association for Psychological Studies -

Students are generally listed as the principle author of publications based on the doctoral dissertation

# Order of Authorship

Barcelona Biomedical Research Park (formerly  
Municipal Institute of Medical Research) –

Order of authorship

As a general rule, the order in which authors appear in scientific publications should be as follows: a) the first author should be the person who has made the greatest contribution to the study and has prepared the first draft of the article; b) the senior author who directed or has final responsibility for the research protocol appears as the last author; and c) the remaining authors may appear in order of importance and, in certain cases, in alphabetical order.

# Honorary and Ghost Authorship

Barcelona Biomedical Research Park (formerly  
Municipal Institute of Medical Research) –

Honorary and ghost authorship

Any person linked to a research group who requests inclusion as an author on the basis of hierarchical position or professional relationship violates the principles of academic freedom and commits an act of injustice, if not abuse of authority. Likewise, the omission of names of any individuals who have made proven contributions according to the criteria in Section 6.2 represents an act of misappropriation of intellectual property on the part of the other authors.

# Authorship policies in highest impact-factor journals from different categories indexed in Sciences Citation Index (SCI, 21 categories) or Social Sciences Citation Index (SSCI, 16 categories)

	SCI (n=110)	SSCI (n=75)
No. journals with authorship definition (%)	56 (50.9)	23 (30.7)
Source of definition (n, %)		
own definition	28 (50.0)	6 (26.1)
definition from professional association	10 (17.8)	4 (17.4)
definition from publisher	18 (32.1)	13 (56.5)
	E WB	E WB

## Authorship policies in a random sample of journals from different categories indexed in Arts and Humanities Citation Index

	SCI (n=260)
No. journals with authorship definition (%)	16 (6%)
Source of definition (n, %)*	
own definition	4 (25)
definition from professional association	0
definition from publisher	12 (75)
	WB E

# Definitions: International Committee of Medical Journal Editors (ICMJE)

The ICMJE has recommended the following criteria for authorship; these criteria are still appropriate for journals that distinguish authors from other contributors.

- Authorship credit should be based on 1) substantial contributions to conception and design, **or** acquisition of data, **or** analysis and interpretation of data; **and** 2) drafting the article **or** revising it critically for important intellectual content; **and** 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3.

# Definitions: Elsevier

Authorship should be limited to those who have made a significant contribution to the conception, design, execution, **or** interpretation of the reported study. All those who have made significant contributions should be listed as co-authors. Where there are others who have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors.

## Definitions: COPE

There is no universally agreed definition of authorship. As a minimum, authors should take responsibility for a particular section of the study. The award of authorship should balance intellectual contributions to the conception, design, analysis and writing of the study against the collection of data and other routine work. If there is no task that can reasonably be attributed to a particular individual, then that individual should not be credited with authorship. All authors must take public responsibility for the content of their paper. The multidisciplinary nature of much research can make this difficult, but this may be resolved by the disclosure of individual contributions.

# Systematic review of research on authorship

**Key word:** *authorship*, search performed 15 January 2010

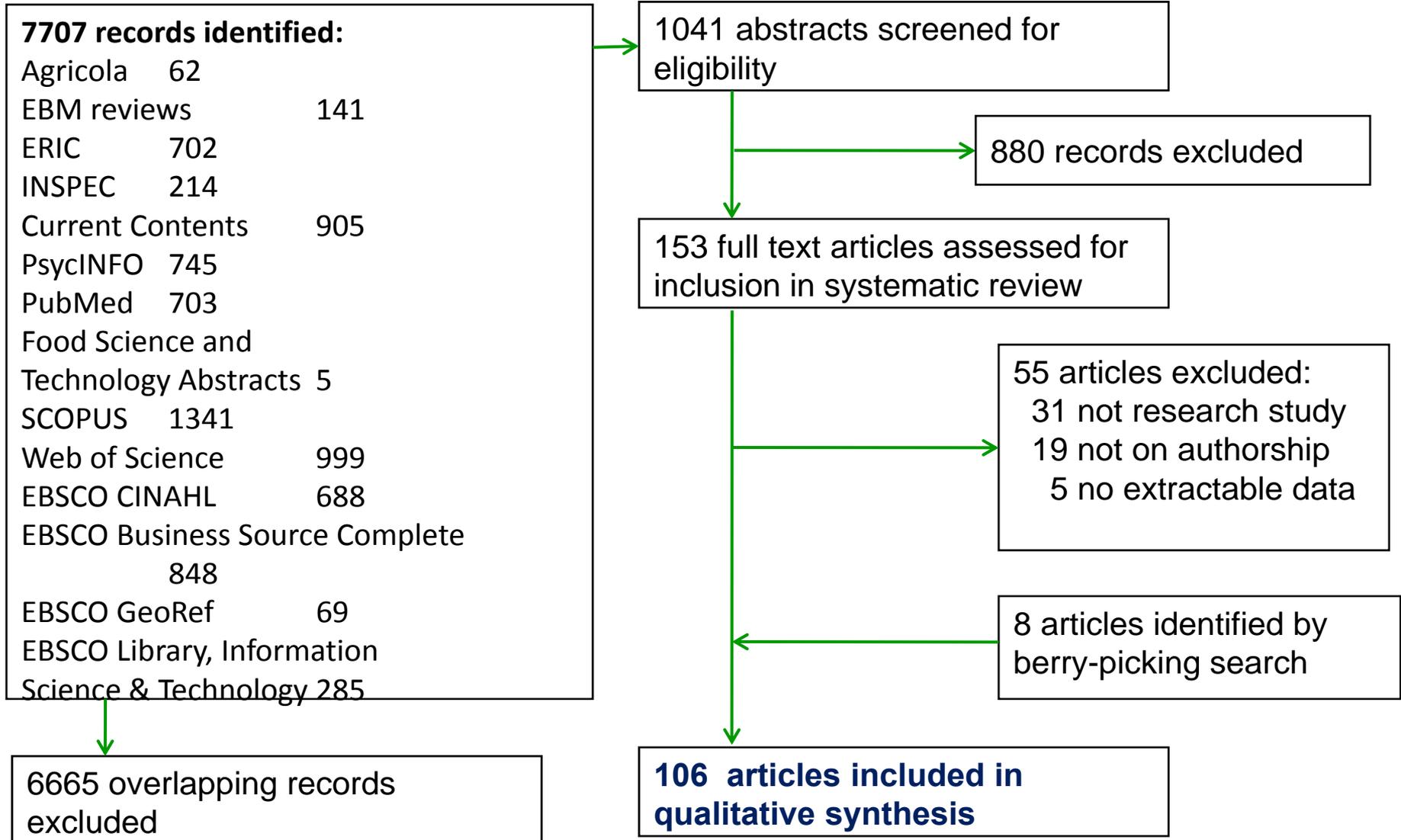
**Inclusion criteria:** quantitative or qualitative research on the

- definition of or criteria for authorship
- authors' contribution to the research and manuscript
- order of authors on the byline
- opinions of researchers and /or editors on authorship criteria
- opinions of researchers and/or editors on authorship order

**Exclusion criteria:**

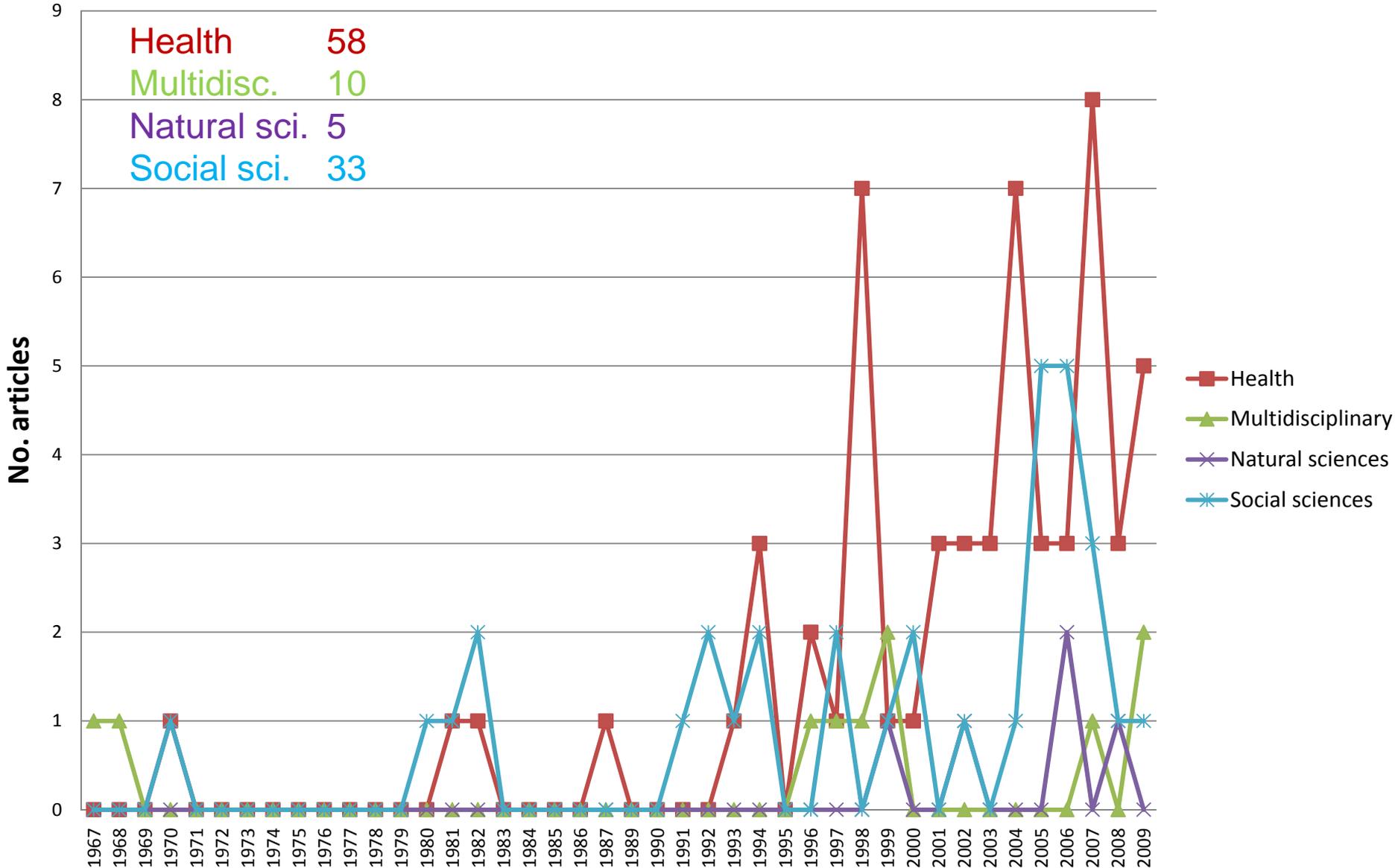
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  - authorship in the context of citation analysis
  - analysis of research collaboration outputs of institutions, groups, research fields
  - trends in authorship in journals, groups of journals, fields, institutions, countries, geographical regions
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2. Analysis of authorship attribution in literature, taxonomy, and psychology/cognitive research

# Systematic review



# Systematic review of research on authorship

Health 58  
Multidisc. 10  
Natural sci. 5  
Social sci. 33



ASSIGNMENT OF PUBLICATION CREDITS:  
ETHICS AND PRACTICES OF PSYCHOLOGISTS <sup>1</sup>

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AND

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Requests for reprints should be sent to Patricia Keith-Spiegel, Department of Psychology, San Fernando Valley State College, Northridge, California 91324.

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PSYCHOLOGY OF THE SCIENTIST: LXXX.  
ATTITUDES REGARDING AUTHORSHIP ISSUES  
IN PSYCHOLOGICAL PUBLICATIONS<sup>1</sup>

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<sup>1</sup>Since all authors contributed equally to the design, research, and writing of this article, order of authors is alphabetical. We thank Robert I. McIntyre for guidance on this project and the Department of Psychology at Old Dominion University for their administrative support. Address correspondence to Bryan C. Hayes, Department of Psychology, Old Dominion University, Norfolk, VA 23529-0267 or e-mail (bchayes@erols.com).

# Research articles on authorship by study design

Questionnaire survey	60
Descriptive	32 (1 with modelling)
Interview	6
Qualitative	4
Randomized	2
Cohort	1
Before-after (no control)	1

# Authorship – main themes

Authors and editors/professional organizations have different views on authorship and practices

There are differences among disciplines in assigning authorship, but they are changing

Contribution declaration forms are not reliable ways of collecting information on deserved authorship

# Authorship – qualitative research

Netting FE, Nichols-Casebolt A. Authorship and collaboration: Preparing the next generation of social work scholars. *Journal of Social Work Education* 1998;33(3):555-564.

36 faculty and students in 3 focus groups

Social work faculty colleagues and doctoral students were uncertain about what guides authorship decisions.

- one must be aware of differences in how authorship and collaboration are perceived in different disciplines,
- sole authorship is important for tenure and promotion decisions in schools of social work,
- collaboration with others is enhanced if perceptions and assumptions one brings to the writing process are known,
- collaborative writing is an exchange relationship based on power dynamics that should not be taken lightly

# Authorship – qualitative research

Birnholtz JP. What does it mean to be an author? The intersection of credit, contribution, and collaboration in science. *Journal of the American Society for Information Science & Technology* 2006,57(13):1758-1770.

Birnholtz JP. When Authorship Isn't Enough: Lessons from CERN on the Implications of Formal and Informal Credit Attribution Mechanisms in Collaborative Research. *Journal of Electronic Publishing* 2008,11(1):1-1. 32 individuals affiliated in various capacities in high-energy particle physics at CERN

- Conflict between contemporary collaborative practice and the traditional institutional structures of science
- Mapping the space of possible contributions and their value

# Authorship – qualitative research

Louis KS et al. Everyday ethics in research: Translating authorship guidelines into practice in the bench sciences. *Journal of Higher Education* 2008;79(1):88-112.

32 high profile researchers in pharmacology, oncology, neurology and genetics from 6 doctoral granting US universities

Three core guidelines on which authorship decisions are based:

1. **Fairness**: rewards should be at least roughly proportional to contributions,
2. **Reciprocity**: a contribution by an individual or group should be matched at least roughly by a return contribution by the original beneficiaries,
3. **Sponsorship**: senior scientists are responsible for furthering the careers and professional development of junior colleagues.

# Authorship – comparison across disciplines

Cohen MB et al. Coauthorship in pathology, a comparison with physics and a survey-generated and member-preferred authorship guideline. *Medscape General Medicine* 2004,6(3):1-2.

Similarity between Physics and Pathology fields:

- there was no well-defined way among respondents to determine coauthorship – the byline is arrived at without the use of public coauthorship standards by 90% of respondents from pathology and 92% from physics

Authorship guidelines should be constructed by public surveys rather than closed-door committees