

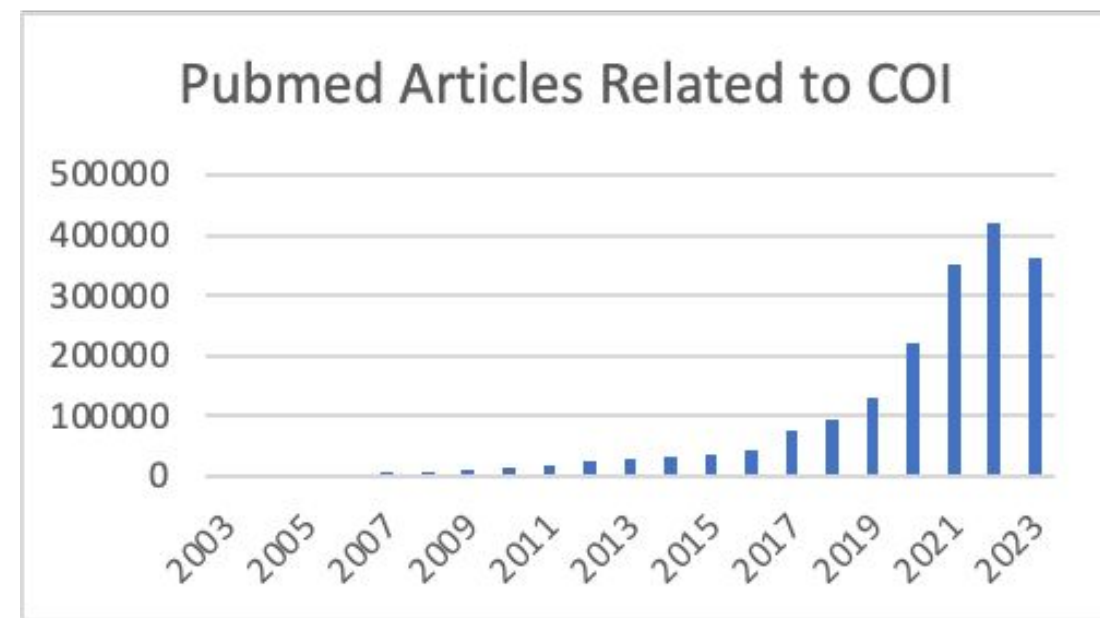
# A Literature Review of Non-Financial Conflicts of Interest in Health Care Research

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## Background

- An increasing amount of attention has been paid to conflicts of interest (COIs) in medicine



- Far more attention has been paid to financial COIs (FCOIs) than nonfinancial COIs (NFCOIs)
- Several studies<sup>1</sup> suggest that NFCOIs might be similarly impactful as FCOIs
- Guidelines from international organizations (ICMJE, COPE)<sup>2,3</sup> for NFCOI management exist, but evidence suggests that adherence isn't consistent<sup>4,5</sup>
- Disagreements still persist about categorization and management of NFCOIs
- We aim to characterize the current state of the literature on this poorly understood topic

## Inclusion/Exclusion Criteria

- We searched Pubmed using a search string containing Medical Subject Heading (MeSH) terms and keywords to capture all articles commenting on the topic of NFCOI
- 2 reviewers (DB, DO) independently sorted articles for inclusion, with any disagreements settled via discussion with a third reviewer (DS)

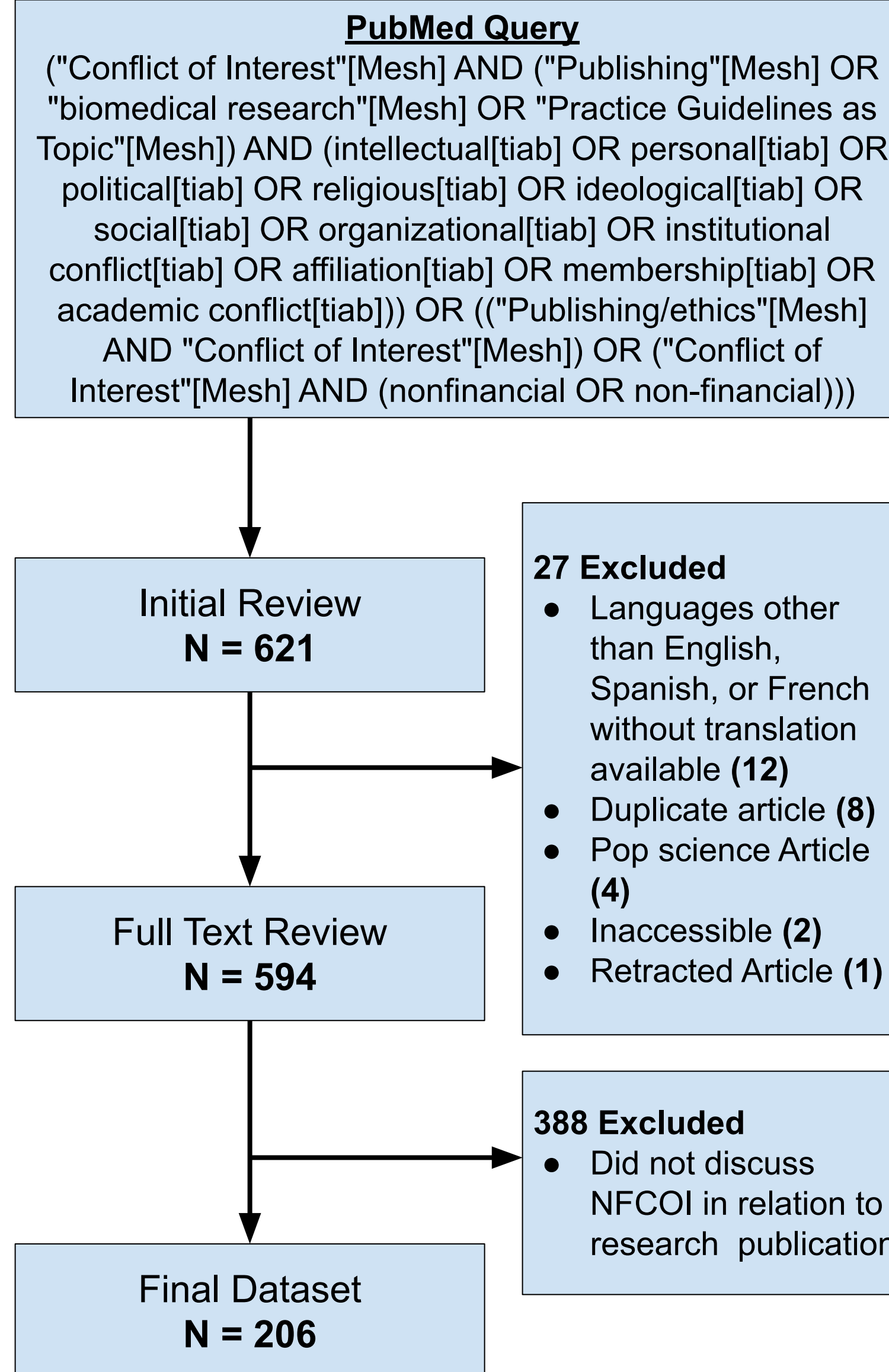
### Article Exclusion

- Language other than English, Spanish, or French
- Reprints or duplicate articles
- Retracted articles
- Inaccessible to all authors
- Non-academic writings (e.g. popular science articles)

### Article Inclusion

- No exclusion criteria
- AND
- Discusses NFCOI in publication or research

## Methods



- All included articles were coded according to type (table 1)
- All articles were coded according to content (table 2) based on iterative rounds of reading the existing literature and identifying relevant themes
- The major themes based on identified points of contention in the literature were:
  1. Whether NFCOIs should even be understood to be COIs
  2. Whether NFCOIs require management
  3. Whether NFCOIs should be managed with disclosure or with other strategies

## Results

- Although there was disagreement, the literature favored the following arguments:
  - a. **NFCOIs should be considered COIs**
  - b. **NFCOIs warrant management, similar to FCOIs**
  - c. **Disclosure should be part of NFCOI management strategies, but is not sufficient in-and-of-itself**
- Management strategies outside of disclosure:
  - a. Editor/reviewer recusal
  - b. Open peer review
  - c. Double blinded peer review
  - d. Submitting protocols prior to review

Article Type	Number (percent of total)	Number that say NFCOI = COI (percent of article type)	Number that say NFCOI ≠ COI (percent of article type)
Editorial/Commentary	85 (41.26%)*	82 (96.47%)*	4 (4.71%)*
Full Length Analysis	53 (25.73%)	50 (94.34%)	3 (5.66%)
Quantitative analysis of journal policies	18 (8.74%)	17 (94.44%)	1 (5.56%)
Quantitative analysis of journal policy adherence	18 (8.74%)	18 (100%)	0 (0%)
Quantitative Analysis of policies and adherence	7 (3.40%)	7 (100%)	0 (0%)
Review Article	10 (4.85%)	10 (100%)	0 (0%)
Letter	7 (3.40 %)	7 (100%)	0 (0%)
Guideline	4 (1.94%)	4 (100%)	0 (0%)
Research support	2 (0.97%)	2 (100%)	0 (0%)
Special Statement	1 (0.49%)	1 (100%)	0 (0%)
Symposium	1 (0.49%)	1 (100%)	0 (0%)

Table 1: Types of articles included in our analysis

Article Content	Number (Percent)
Argues that NFCOI is a COI	198/206 (96.12%)*
Argues that NFCOI ≠ COI	7/206 (3.88%)*
NFCOIs are important and need management	150/206 (72.82%)*
Treats disclosure of NFCOIs as Insufficient	83/150 (55.33%)
Treats disclosure of NFCOIs as Sufficient	41/150 (27.33%)
Does not directly discuss disclosure or other management strategies	26/150 (17.33%)
No statements on the importance of managing NFCOIs	47/206 (22.82 %)*
NFCOIs should not be managed similarly to FCOIs	8/206 (3.88%)*
Disclosure of NFCOIs has significant drawbacks	25/206 (12.14%)
Disclosure of NFCOIs distracts from FCOIs	5/206 (2.43%)
Contained NFCOI case studies	6/206 (2.91%)
Contain policy statements on journal standards	40/206 (19.42%)
NFCOI is difficult to manage as compared to FCOI	44/206 (21.36%)
NFCOI is neglected relative to FCOI	46/206 (22.33%)
Discusses Author NFCOIs	178/206 (86.41%)
Discusses Reviewer NFCOIs	80/206 (38.83%)
Discusses Editor NFCOIs	76/206 (36.89%)

Table 2: Article content

## Discussion

- The range of opinions expressed in our sample suggests a lack of consensus
- The different definitions and guidelines suggest that NFCOIs are not uniformly addressed
- Despite varied opinions, general agreement is that NFCOIs exist and need to be addressed
- It is important for all members of the medical community to grapple with the definition and implications of NFCOIs so they can critically appraise both literature and clinical practice

### Limitations:

- We only used the PubMed database. This may have limited the perspectives and fields represented in our sample
- Our search strategy may have been biased for articles that consider NFCOI to be a COI
- Our search strategy may have missed more obscure terms used to refer to NFCOI

### Future directions

We hope to see papers that offer understandable, actionable steps to manage NFCOIs, informed through the lenses of philosophy and data driven science.

## References

- <sup>1</sup><https://onlinelibrary.wiley.com/doi/10.1111/imj.14233>
- <sup>2</sup><https://www.icmje.org/recommendations/browse/roles-and-responsibilities/author-responsibilities--conflicts-of-interest.html>
- <sup>3</sup><https://publicationethics.org/node/34936>
- <sup>4</sup><https://onlinelibrary.wiley.com/doi/epdf/10.1002/jrsm.1507>
- <sup>5</sup><https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5606121/>

## Acknowledgments

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