

Principles and Guidelines for Research Collaboration and Authorship

Approved by SPH Faculty – August 16, 2016

A. Purpose

The principles and guidelines described herein are adopted to promote a shared understanding of ethical research collaboration and authorship in the UNTHSC School of Public Health. The School has adopted these guidelines to promote fairness, generosity, collaboration, and mutual respect in our research endeavors. The guidelines: (a) provide guidance for determining responsibilities, obligations, and authorship; (b) promote positive collegial relationships; (c) increase the quality of collaborative research endeavors; and (d) have the potential for increasing the research productivity of collaborating investigators.

The principles and guidelines pertain to faculty, professional staff, and students working on research projects. They apply to funded and non-funded research projects, research without student involvement, and to the preparation of journal articles, books, book chapters, presentations, or other projects that disseminate knowledge.

The principles and guidelines represent the shared norms of the faculty of the UNTHSC School of Public Health. They are not an official policy of the UNTHSC.

B. Principles of Collaboration

1. All investigators contribute to all scientific decisions

Principal Investigators (PI's), Co-Principal Investigators (Co-PI's), and Co-Investigators (Co-I's) should contribute to and participate in all decisions that affect the scientific direction or quality of a project. All project investigators will act as an Executive Committee. The Committee will meet as needed and remain intact for the life of the project. The Executive Committee should strive, through active and open discussion, to arrive at decisions by consensus. However, in the event that this fails, decisions can be: (a) delayed until further information is collected and reconsidered at a subsequent meeting; (b) by vote; or (c) by ruling of the PI. In rare cases, Executive Committee members may turn to a Department Chair for assistance with resolving a dispute.

2. Principal Investigators must lead

The PI is obligated to lead the project through all phases -- though s/he (or the Executive Committee) may delegate specialized tasks to other investigators. In the eyes of the funding agency, the University, and other collaborating organizations, the PI is responsible for final scientific, administrative and budgeting decisions, actions and consequences. In rare cases, Executive Committee members may turn to a Department Chair for assistance with resolving a dispute.

3. Assign or claim investigator level fairly

In advance of the project, determine the order of investigators and their level (PI, Co-PI or Co-I) by their level of scientific contribution and active leadership on the project. The person making the greatest scientific contribution should be the PI. Usually, this will be the person originating the project. Senior investigators should consider serving as Co-Investigators rather than as a PI or Co-PI when they lack time to make substantial contribution to a project.

Only persons who make significant scientific contributions should be investigators. Professional staff and students can qualify as investigators. A significant contribution requires: (a) a set of skills that contribute significantly to the feasibility or scientific merit of the project; (b)

well-developed ideas; and (c) active participation in proposal development and writing, conducting the project, and writing research reports, papers, books, book chapters, etc.

4. Share the obligations as well as the glory

Enhance collaboration by sharing leadership among investigators. Each investigator should bring special expertise or skills to a research project, and s/he should provide leadership over those areas for the entire project, unless the aims of the project change. With the agreement of the Executive Committee, one investigator or a subcommittee may be delegated final authority and responsibility over certain areas. Such sharing of leadership should be made public. Construction of an organizational chart can help clarify interests and responsibilities, and any overlaps among investigators. However, the PI has ultimate responsibility for final decisions, actions and consequences.

All investigators should be concerned with, and participate in all decisions that affect, the scientific direction or quality of a project. Therefore, shared responsibility should always be by agreement of all investigators, and the person or subcommittee should always report back to the Executive Committee.

5. Give project staff leadership opportunities

Include all project contributors in decision-making to the extent possible, including students. For large funded research projects, include the Project Director, Coordinator or Manager in all such decision-making subcommittees.

6. Learn from each other

Collaborating investigators can and should learn from each other. In this way, the quality of the final project (and future projects) can be maximized.

Senior investigators should act as mentors for early career investigators and students. This includes including them as authors on papers. Senior investigators should demonstrate a willingness to learn from less experienced investigators who, in turn, should be willing to share their expertise and skills. Early career investigators may have special expertise in areas such as: statistics, data collection methods, cultural competence, community relations, etc.

7. Follow fair procedures to alter members of collaborating groups

Sometimes, a project may need to add a Co-Investigator for expertise in an area, e.g., because an original investigator leaves or because an aspect of the project changes requiring additional expertise. In such cases, an invitation to a new Co-Investigator should normally require the agreement of all existing investigators.

Collaborative research relationships can fail. One investigator may, or may be perceived by the others, to jeopardize the project by, for example, not being available for Executive Committee meetings, not following through on their responsibilities, making decisions without the agreement of the Executive Committee, never agreeing with other investigators, "bad-mouthing" the project or other investigators to outsiders, etc. In such a case, the PI or the remainder of the Executive Committee should first attempt to repair the damage and re-engage the Co-Investigator. If repeated attempts at this fail, the Executive Committee may vote to remove the non-cooperative investigator from the project. However, to avoid unfair removals, the Executive Committee should document decisions (including reasons for it), and implementation of such action must involve Department Chairperson(s) and Dean(s). Here too, the PI has the final responsibility, and may exercise final authority if needed.

8. All investigators have responsibilities to their colleagues

At a minimum, all investigators are obliged to: (a) contribute their scientific expertise, (b) attend all Executive Committee (see #1 above) meetings and participate in all decision-making, and (c) respond in a timely manner to requests for information from the PI and/or the Executive Committee. For investigators with only a 5% effort, these may be their only obligations. Investigators with more than a 5% time involvement are also obliged to make additional contributions to the project according to their level of effort and areas of expertise and experience. Each investigator should take on responsibility for a particular area of the project in the spirit of sharing leadership (see #4 above). Problems can be lessened by negotiation at the outset of a project of an explicit agreement regarding time, responsibility, and expected contributions by each investigator. Periodic review of this (e.g., on an annual basis) should occur.

C. Definition of “Sufficient Participation for Authorship”

Each author should have participated sufficiently in the work represented by the article, book, book chapter, or presentation to take public responsibility for the content. An author must be able to defend the content of the work, including the data, or other evidence, and the conclusions based on them. The author must also be willing to concede publicly errors of fact or interpretations discovered after publication of the article and state the reason for the error.

“Sufficient participation” by an author requires three contributions to a work: (a) conception or design of the work, analysis and interpretation of the data, or both; (b) drafting the text for the paper, book, or book chapter, or revising it for critically important content; and (c) providing final approval of the version to be published. Authors cannot publicly defend the intellectual content of the article unless they understand its origins (conception) and can testify to the validity of its argument (critical analysis of evidence). Authors must also have sufficient involvement in writing the paper to be able to defend the article as an accurate report of the work that led to it.

Participation solely in the collection, input, or management of data, e.g., serving as an interviewer, does not justify authorship. Data and other evidence may be gathered by persons who know little or nothing of the steps critical to the main intellectual substance. Such persons could not take public responsibility for the main elements of an article and could testify only to the validity of elements of the evidence and not to how they support the arguments and its conclusion. Contributions of data by persons for whom authorship is not justified can be acknowledged by other means, such as identifying them in an Acknowledgments section of a paper or book.

The following contributions to a paper, book, book chapter, or presentation alone may not represent sufficient participation for authorship:

- a. retrieval and collection of published literature and databases;
- b. collection of primary data and data entry;
- c. supervised data analysis;
- d. building and maintaining research apparatus;
- e. recruiting research participants;
- f. assisting in the delivery of a community or clinical intervention;
- g. advising on a specific statistical issue.

D. Authorship Guidelines

To insure fairness of authorship and work quality, collaborating investigators in the School of Public Health agree to the following seven guidelines.

1. Meet prior to the start of work. The PI must initiate a research team meeting to discuss the number and order of authorship prior to the development of a paper.
2. All investigators are authors on all papers (unless they decide otherwise). All investigators (PI, Co-PIs, and Co-Is) are assumed to be potential co-authors on works produced by the team in accordance with their level of scientific contribution and effort, unless they decide that their input, influence or effort on a particular work does not warrant it. That is, all investigators shall be given the opportunity to contribute to a work or else withdraw their name from it. Specialized review or methodological papers may be an exception to this general principle, but investigators and authors should agree to any such exception before work begins on such a paper, book, or presentation.

By assuming that each investigator is a potential author on a work, it is left to the honor and judgment of the individual investigator to decide whether or not: (a) they have made a reasonable contribution, and (b) they agree with the substance or interpretations as written.

Investigators who leave the University or research team continue to deserve authorship on later papers because of their contribution to the design of the project. Investigators joining a project in progress deserve authorship on subsequent papers based on their role and scientific contribution, according to the same principles stated above.

3. Determine order of authorship fairly. Determine order of authorship by the level of scientific contribution to the particular work. Decisions about scientific contribution will be based on such factors as: (a) acquisition of funding for a project; (b) development of the general research questions or thesis; (c) development of a conceptual model that provides the foundation for the work; (d) data analysis and interpretation; and (e) level of effort devoted to manuscript preparation.

Faculty rank or status should play no role in determining order of authorship on a specific work. For example, if the major scientific contribution to a work is produced by a student or an early career faculty member, that person should be identified as first author ahead of other more senior faculty members, regardless of who secured funding for the project.

4. Responsibilities of first authors. The first author should make the greatest contribution to the paper, book, book chapter, or presentation. Common responsibilities of first authors include:
 - a. produce the first draft of the manuscript in most cases;
 - b. providing all co-authors with an opportunity to review the final draft;
 - c. incorporating feedback from all co-authors into the submitted (and revised) manuscripts;
 - d. submission of the work for peer review;
 - e. communication with journal and book editors, including preparing submission letters and revision letters;
 - f. provide all co-authors with copies of all correspondence with journal and book editors;
5. Rotate first authorship. Within collaborative projects that will produce multiple works, investigators should consider rotating first authorship. PI's have the responsibility to provide opportunities for every investigator to have a fair chance to be a first author on a work. PI's can justifiably claim first authorship on one or two key descriptive or outcome papers in multi-work projects. However, in such situations, PI's also should make major direct contributions to the preparation of these manuscripts, in addition to merely securing funding or initiating the project.

6. Professional staff and student authorship. PI's should attempt to identify appropriate ways for professional staff and students to have opportunities for authorship. For example, community or clinical intervention delivery personnel may make significant contributions to papers that describe the intervention in detail and sometimes on overall project outcome papers.

Statisticians who conduct and interpret data analyses are normally co-authors of data-based papers. Statisticians who prepare methodological papers using project data are usually first authors on such papers.

PI's have the responsibility to initiate discussions with professional staff members and students about their opportunity for authorship *before* assigning project work. PI's should not promise authorship to professional staff members and students in advance of their work. Guided by Section C (Definition of "Sufficient Participation for Authorship"), PI's need to carefully describe and specify the effort and quality of work needed to justify staff member or student authorship. As noted in Guideline #2, any member of the research team can be first author if justified by their contribution to the work.

Project staff and students should regard authorship as a privilege and opportunity, not a right. Section C (Definition of "Sufficient Participation for Authorship") should be reviewed to determine whether authorship may be warranted. On occasion, a PI may assign a project staff member or a student a primary role in developing a specific work. However, if the work requires close supervision from an investigator, or if the work is not completed in a satisfactory manner in the agreed upon time period, the PI has justification for assigning secondary authorship to the person or removing them as an author.

A student proposal to use data from a faculty member's research project for a master's thesis or doctoral dissertation needs the approval of the Executive Committee. The thesis or dissertation proposed by the student must represent a specific subset of or a derivation from the faculty member's original research project, developed and analyzed individually by the student. However, under these project circumstances, any generated publications are subject to joint authorship as described above. In these circumstances involving use of a faculty member's original research project, students will be aware of these general principles early on in the development of their thesis or dissertation proposal.

Students will be first author on publications produced from thesis and dissertation research that is not supported by a faculty member's research project. Based on their contributions to the thesis or dissertation (see Section C - Definition of "Sufficient Participation for Authorship"), faculty members serving on student supervisory committees may qualify for co-authorship. Faculty members should not regard service on thesis or dissertation committees as automatically leading to authorship on works published from student thesis or dissertation research. Their contributions to the work must meet the criteria identified in Section C.

7. Be transparent with colleagues and students. Members of a research team will not initiate (or publish) any work supported by a shared project without the knowledge of the Executive Committee. Likely publication outlets for a work should be identified at the time they are approved by the Executive Committee.

8. Follow fair procedures to alter the order of authorship on papers in progress. First authorship can be reassigned by the Executive Committee if work is not produced in a timely fashion. Sometimes reassignment can result from unexpected findings discovered during data analyses. In other circumstances, reassignment occurs because conditions outside the study mandate a

reduction in level of effort, e.g., change in professional responsibilities or illness. Decisions about reassignment should occur with the consensus of all investigators.

E. Unethical Publication Practices

The following publication practices must be avoided by the School of Public Health faculty, staff, and students.

1. Extending gift authorship. This is the unethical practice of identifying a person as a co-author who has not made a sufficient contribution to the work. This has been done in a quid pro quo fashion to maximize number of publications among a team of investigators. At other times, it has been done to seek favor from an authority figures, e.g., a department chair or extended to a recognized expert in the field to bolster the credibility of the work. Students have also been given gift authorship to strengthen their attractiveness to future employers.
2. Exclusion of important contributors. This is the unethical practice of excluding persons who have made an important contribution to a work. There are a number of motivations behind this unprofessional practice.
3. Publishing highly redundant and/or duplicative publications. This is the unethical practice of publishing papers in the peer-reviewed literature that contain highly redundant content. In some cases, only the title and/or abstract have been modified. There are also examples of identical papers published in two different journals.
4. Failure to properly disclose a potential conflict of interest. This is the unethical practice of failing to disclose involvement in an activity that could bias the evaluation of a research method or a study conclusion reported in a published paper. Potential conflicts of interest should also be reported to the UNTHSC Research Conflict of Interest Committee.
5. Engaging in plagiarism. This is the unethical practice of claiming the ideas and written words of others as one's own.

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