Authorship Ethics in the Era of Team Science

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The dissemination of research findings in articles is essential. Held to the same ethical standards of the studies themselves, the level of contribution determining authorship and authorship order needs to be established a priori. In the current era of team science, with its focus on the acceleration of personalized care, many people are needed to answer comprehensive research questions. This article explores how a large number of authors can contribute meaningfully to team science articles.

Today, in the era of precision health, the ability to ask more comprehensive research questions related to cancer prevention, treatment, symptom management, and survivorship has increased exponentially. This type of research involves numerous data sources (e.g., genomic data, electronic health record data, geophysical mapping data, social networking data) that require a research team with a wide range of expertise. Although team science occurs in large and small research teams, in the current context of research, a large group of individuals who bring their own unique expertise to the table is often needed. By its very nature, team science facilitates the development of robust research questions. It is equally important that, when data are collected and analyzed, team members’ different perspectives and expertise enrich the interpretation of the study findings. In addition, many large work groups publish salient white papers, guidelines, and findings from large-scale, multicenter trials and, sometimes, multination trials that contribute essential information on cancer prevention and management. Many of these publications include tens or even hundreds of authors. In the November 2015 issue of Oncology Nursing Forum, Katz’s (2015) editorial discussion focused on the ethical question of how large numbers of authors listed on a manuscript could each contribute meaningfully. For some manuscripts, this questioning is well merited. In this column, the authors will provide a different perspective on how a large number of authors can make unique and substantive intellectual contributions to team science articles.

Intellectual Significance

As a key dissemination piece of research studies, published articles are held to the same ethical standards as the studies themselves, including integrity of author contributions. These large team science articles contain multiple components that often require the expertise of many team members. For example, the principal investigator and other content experts may write the introduction and rationale for the article, the project director and research staff may write the methods section, the biostatistician may conduct the analysis and write up the results, and the entire team may participate in the interpretation of the study findings and the writing and revision of the discussion. In many cases, specific team members make intellectual contributions based on their particular area of expertise (e.g., genomic markers, machine learning techniques, analyses of big data). Sometimes, the methods and data are so extensive that large portions are posted online as supplements. Authorship order usually depends on each author’s level of contribution.