

Moving toward policy development on assigning publication credit for oncology nurses' contributions to scholarly and scientific work

By Diana Ginn and Lorna J. Butler

Abstract

The policy implications of a 1996 national nursing survey on the allocation of publication credit form the focus of this paper. An earlier article (Butler & Ginn, 1997) describes and analyzes the outcome of the survey; the purpose here is to draw on that analysis, and on the relevant literature, to propose a starting place for discussion within the specialty of oncology and the nursing profession regarding assignment of credit for various contributions to collaborative scholarly work. After identifying the growing need for such a discussion and briefly highlighting the findings of the survey, the paper goes on to examine unacceptable practices in scholarly work and identify issues which should be resolved before collaborative work is undertaken. The final portion of the paper makes tentative suggestions as to principles and guidelines which might be applied to avoid disputes about the value of different contributions to a collaborative project. It is emphasized that the intention is not to advocate acceptance of the guidelines suggested here, but to create sufficient interest so that an approach to allocation of publication credit may be developed which will be consistent and relevant to the needs of the nursing profession.



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Introduction

Oncology nurses working in a variety of practice settings are becoming more involved in scholarly and scientific work. While traditionally this work was conducted in universities, the increasing number of graduate prepared oncology nurses brings an academic perspective to cancer care. The greater focus on academic activity is likely to continue in nursing, and it seems probable that nurses from different backgrounds will collaborate with each other and with those in other disciplines. Furthermore, research funding agencies are promoting collaboration among professionals in the health care disciplines, which encourages and provides more opportunities for oncology nurses to participate. Any collaborative scholarly work raises the issue of how to allocate credit among various contributors. This means that where research and writing take place in settings that have not yet addressed the issues of publication credit, those involved in such work must start to consider ways in which work will be recognized and credited. It is important that all those involved become knowledgeable participants in the collaborative process, be able both to value their own work and recognize the diverse contributions of others. A survey of Canadian nurses who currently participate in scholarly and scientific work was undertaken to ascertain their perspectives on issues relating to allocation of publication credit. A separate article (Butler & Ginn, 1997) describes the survey results in detail, identifies areas of agreement and disagreement, and discusses factors that appear to have influenced respondents' views. Based on that analysis of the survey results, this article proposes tentative guidelines, as a starting place for oncology nurses to begin the discussion of assigning publication credit within their work setting and more broadly within the specialty.

Literature review

Major issues confronting publication credit are plagiarism, copyright law and professional ethics. Plagiarism is the representation of another's ideas, language and techniques as one's own, and includes paraphrasing and not crediting portions of another author's work. It may result from naivety, ignorance or honest error, sloppiness, dishonesty, lack of support and supervision for beginning writers, or the pressures of tenure and promotion mechanisms. It is also possible to commit self-plagiarism by using original data previously published without crediting or obtaining the permission of the journal where the publication was made (Armstrong, 1993; Flanagan, 1994; Smith-Blacett, 1992; Bradshaw & Lowenstein, 1990; Woolf, 1986; Petersdorf, 1986).

The intent of copyright law is to protect the intellectual labour which goes into producing an original work. Generally the author, or joint authors, of a work will own the copyright [Copyright Act, 1985, s. 13(1)]. Copyright is defined in the Copyright Act (1985) as "the sole right to produce or reproduce the work or any substantial part thereof in any material form whatever... or, if the work is unpublished, to publish the work or any substantial part thereof..." [s.3(1)]. However, if the author produces the work in the course of his or her employment, then, in the absence of any agreement to the contrary, the employer owns the copyright. Since it is likely that at least some of the writing done by nurses will occur in the employment context, where the copyright resides with the employer, this may

complicate the issues somewhat. The Copyright Act (1985) also states that where work is to be produced, reproduced or published, the author who does not have copyright may still have the right, "where reasonable in the circumstances, to be associated with the work as its author by name..." [s.14-1(1)]. Professional ethics are relevant in that nurses participating in scholarly or scientific work are ethically obligated to ensure accurate dissemination of their work (Clark, 1993). Given the vagueness of regulation in this area, the lack of accord among professions regarding how to value various contributions, and the value individuals attach to authorship, this may be a difficult task (Diguisto, 1994). It is evident that issues surrounding authorship credits are not straightforward and involve both legal and professional points of view. The lack of consensus among health professions, and the maturity of specific disciplines in defining principles to guide their practice, suggest that nursing should begin to consider professional discussions of authorship credit, legal implications of publishing material and the ethics of the nursing profession to guide development of collaborative work practices.

Three national studies, based on the Spiegel et al. survey, conducted within the nursing profession, agreed that at the time of the surveys, authorship was an issue primarily for nurses employed in academic settings and had little importance for community or hospital administrators, deans of hospital schools of nursing and clinical nurse specialists (Werley, Murphy, Gosch, Gottesmann and Newcombe, 1981). Waltz, Nelson & Chambers (1985) compared nurses' views with other disciplines in which collaborative research teams would most likely be formed. Their results revealed that while there was a high level of agreement within nursing, there was a general lack of consensus among the

health professions. Nursing, social work and dentistry were most closely aligned. Less agreement was found for items more closely linked to clinical research, when respective contributions were equal, where status became a factor and in ordering of authorship other than first author, than there was for items relating to technical contributions or work completed by individuals not prepared at the doctoral level. A survey of nurse educators prepared at the doctoral level identified different responses by experience (Templeton-Gay et al., 1987). For example, full professors responded that student dissertations should be authored only by the students with acknowledgement of the professor, while assistant professors suggested co-authorship. Areas of disagreement were consistent with Waltz et al. (1985). These studies span approximately 20 years. It is of interest to note that the issues surrounding authorship credit are highly contentious in the broad context of the health professions as well as within professions, and have remained so over the years.

Summary of the Canadian nursing survey

A 1996 survey of Canadian nurses who participate in scholarly or scientific work, forms the basis of this article. The purpose of the study was to assess the respondents' views on the assignment of publication credits and to determine if consensus existed for the development of guidelines for assigning publication credits. A complete discussion of the survey findings is previously reported (Butler & Ginn, 1997). The intent of this article is to relate the findings to potential areas for policy development.

The study replicated the Werley et al. (1981) American survey, with sampling based on: the current membership of the Canadian Academy of Chief Executive Nurses; nursing directors in hospitals listed in the Canadian Association of Teaching Hospitals who were not members of the Academy of Chief Executive Nurses; deans/directors of university schools of nursing both with and without a graduate program; and the Canadian Nurse Research Group membership.

The Werley et al. (1981) questionnaire was adapted with permission from Keith-Spiegel, the American Psychological Association and Werley et al. (1981). Forty-two hypothetical situations comprised the questionnaire items and were altered to reflect the Canadian health care system and to address present issues which are relevant to Canadian nurses engaged in scholarly and scientific work in various settings.

The sample was comprised of 184 Canadian nurses who are likely to publish scholarly and/or scientific work and who, because of their professional roles, should be instrumental in informing the views of publication to the institutions in which they work. A response rate of 52% was achieved. Table One describes the nurses who participated and the response rate for each of the nursing groups targeted for inclusion in the study (see Table One). The majority of nurse respondents were chiefly involved in teaching (34%) or administration (32%). Most were employed by a university (49%) as an associate professor (23%). The highest degree obtained by most respondents was a doctorate (40%). Most respondents had publications, generally in refereed journals (60%). The most published group were Masters-prepared university professors (23%) and directors of schools of nursing with a graduate program (17%).

Categorizing the data. The questionnaire items were grouped by content using the following categories: research (four items), scholarly work (three items), two authors (three items), hospital - faculty consultation (five items), role/status (three items), groups (five items), paid consultant (five items), students (five items), plagiarism (three items), copyright (two items) and four single items concerning multiple authorship, ranking of

Table One: Survey distribution and sample respondents

Target group	Surveys distributed	Useable returned sample	Response rate (%)
Nurse executives	61	32	52
Nurse educator - H	56	25	45
Nurse manager - H	10	7	70
Clinical nurse specialist - H	18	9	50
Staff nurse - H	6	4	67
Researcher - H*	16	1	6
University professor (Masters)*	56	29	56
University professor (PhD)	78	45	58
Dir S of N (BN prog)	16	8	50
Dir School of Nursing (Graduate program)	14	9	64
PhD candidate*	15	7	53
Nurse instructor (Diploma)	7	7	86
Community	3	1	33
TOTAL	356	184	51.6

H = hospital setting

* = one response not used

authorship by task, footnote acknowledgement and no credit. The original plan was to identify as modal responses items which received 85% agreement. Only two items met this level of agreement; however, five more items achieved 80% agreement, and it was decided to identify these seven as modal responses. For each of the seven, the level of agreement among the different types of respondents was also examined. Unanimous agreement did not exist for any items (see Table Two).

Responses to hypotheticals. Given that responses to the survey are described in detail elsewhere (Butler & Ginn, 1997), only a brief overview will be provided here. The focus of this article is not the results themselves. Instead, the intent here is to use both the agreement and the discrepancies revealed in the survey, to explore initial principles and guidelines for allocating authorship and footnote credit among different contributors in nursing settings.

Two major themes emerged from respondents' written comments in the survey: (1) credit should be based solely on contribution, not rank, and (2) to the extent possible, authorship and footnote acknowledgement should be resolved beforehand. Interestingly, however, while these themes were clearly reflected in some of the chosen responses, on other hypotheticals there was disagreement about how these principles should apply (see Table Three). Variations from the theme that credit should always reflect contribution seemed to result from the

organizational setting in which the respondents practised, the number of publication credits held by the respondent, and the status of those described in the hypothetical. Furthermore, some responses reflected the complexity of the issues involved; for instance when the issue of copyright was raised, responses and comments revealed some misunderstanding of the differences among issues of copyright, the right to publication credit, and plagiarism.

Discussion

The variations in response to the hypotheticals used in the survey indicate the need for guidelines within the profession to determine how publication credit should reflect various contributions to scholarly work. The intent here is to raise issues and suggest possible approaches, in order to stimulate discussion among nurses. A number of guidelines for assigning credit already exist in other professions and settings. In addition to the well-known APA ethical principles governing authorship (the basis for the Spiegel et al. [1970] study), other organizations have also developed authorship guidelines. The Society of Endocrinologists (Publication Committee, 1988), The Natural Sciences and Engineering Research Council of Canada (NSERC), The Social Sciences and Humanities Research Council of Canada (SSHRC), and more recently the Canadian research-funding agencies of The Medical Research Council (MRC), have drafted guidelines for the integrity of research and

Table Two: Modal responses using 80% agreement

Modal responses	Number of respondents in agreement by category								
	NE n=32	NE-H n=25	NM n=7	CNS n=9	SN n=4	UP (M) n=29	UP (PhD) n=45	Dir (BN) n=8	Dir (GP) n=9
Team research: volunteer members below the doctoral level are entitled to same authorship privileges as paid or doctoral level participants if similar contributions.	30	22	0	7	4	28	40	7	6
Unethical to share authorship with someone of higher status unless that person makes substantial contribution.	30	23	0	7	1	20	38	5	7
Nursing staff who assist with data collection and clinical observations of care should be acknowledged in a footnote.	27	22	0	3	3	26	40	8	6
Professor is asked to read a paper for two nurse educators. No changes are made. Unethical to name the professor as an author.	28	23	0	9	4	24	39	7	8
A member of an interdisciplinary research team who helps to plan a study but fails to follow through on the work allocated on the project should receive a footnote credit only.	29	21	0	6	4	26	37	6	7
Research team: paid members below the doctoral level are entitled to same authorship privileges as doctoral level participants if similar contributions.	26	22	0	8	4	24	35	7	6
Order of authorship on a paper should be based on contribution of the team members not their status in the clinic setting.	29	20	0	8	3	26	36	6	8

Code: NE = nurse executive, NE-H = nurse educator - hospital, NM = nurse manager, CNS = clinical nurse specialist, SN = staff nurse, UP(M) = university professor Masters prepared, UP(PhD) = university professor PhD prepared, Dir(BN) = director/dean school of nursing BN program only, Dir GP = director/dean school of nursing with graduate program

scholarly work (1993). Perhaps the most recognized and referenced guidelines for journal publication of scientific and health-related scholarship are the Uniform Requirements for Manuscripts Submitted to Biomedical Journals which are presently reported as the guide for over 400 journals (International Committee of Medical Editors, 1988; New England Journal of Medicine, 1991; and the Canadian Medical Association Journal, 1992). While these guidelines are a useful resource, discourse among nurses is necessary to ensure that any guidelines which may be adopted truly reflect the needs and perspectives of the nursing profession.

The discussion here will progress in three stages: a) identification of practices which are not acceptable in academic work, b) identification of issues which ought to be discussed before embarking on collaborative research and writing, and c) development of principles and guidelines to guide such discussions.

Identifying unacceptable practices. The variations in responses to the nursing survey identify a need to clarify appropriate and inappropriate practices in writing for publication. Five key areas are noted:

(a) Scholars must avoid plagiarism, lying or the suppression of inconsistent data, (Endocrine Society, 1988). Plagiarism has been described as "literary theft" (Fondiller, 1992). It involves using the words or ideas of others, without acknowledging the source. The most obvious form of plagiarism is to take phrases or whole passages directly from another's writings and pass them off as one's own. Even if the stolen passages are rewritten slightly, this is still unacceptable (Armstrong, 1993). Obviously plagiarism is harmful to the person whose work has been appropriated. It also gives a dishonest advantage to the person who has plagiarized, since he or she can produce scholarly papers without the effort of original work.

(b) Distorting or suppression of data is also unacceptable. While argument, debate and finding new ways to look at problems are all important aspects of academic work, scholarly research and writing expands general knowledge and understanding only to the extent that readers can rely on the rigorous honesty of all academic writers.

(c) Assigning authorship credits is also an issue of intellectual honesty. An individual should not be acknowledged as an author unless he or she has made a major contribution to an original work.

(d) Academic writing should be intended to expand knowledge, not simply expand lists of publications. It is legitimate to write more than one article about a given topic, so long as the following criteria are met: there is some logical reason for separating different aspects of the topic into two or more articles; the content of the articles is truly different; and it is acknowledged that each article is one part of a larger work. However, authors must avoid the pitfall of using multiple articles where one would do. Problems arise if a topic that could easily be managed in one paper is divided into several pieces to provide more titles on one's curriculum vitae when two or more articles contain substantially the same content; or if there is no acknowledgement within the papers that each is treating a different aspect of a larger topic (Fondiller, 1992).

(e) Copyright law prohibits the making of unauthorized copies of a work. Copyright is the legally recognized right to control the production or reproduction of a particular work. When a paper is published in a journal, then, depending on what is agreed upon between the journal and the author and whether the issue of copyright is dealt with in the employment contract of the author, the copyright might reside in the journal, the author, or the author's employer. The publication could not legally be reproduced without permission from and payment of royalties to

the copyright holder. It should be noted, however, that copyright is separate from publication credit. Thus the fact that a contributor does not hold copyright does not diminish his or her right to be recognized as author, or to receive footnote credit for lesser contributions.

Defining a process for dialogue. Where two or more individuals are intending to work together, the best way to avoid acrimony at a later stage is to work out roles, responsibilities, and acknowledgements before a project begins. The benefit of this approach was clearly recognized by respondents to the nursing survey, particularly in written comments. In fact, this need for early discussion emerged as one of the two main themes from survey responses. Before beginning any collaborative work, it seems appropriate that participants should ask:

- What is the proposed work or project?
- Who has been involved so far, what role have they played, and have they been given an opportunity to continue to take part?
- What steps will be necessary to complete the project? Who will be responsible for each stage of the project?
- Assuming that each person fulfills their responsibilities, how will they be credited in the finished work? If one person does not complete the assigned tasks, how will this be dealt with?

For individuals who have worked together before and learned to trust each other, this process may be done fairly informally.

In this context, it is important to note the issue of power imbalance. Where several people plan to work together on a project, they may not all hold equal power. Differences in experiences and status may make it easier for some to insist on credit that exceeds their actual contribution and more difficult for others to insist that their contributions are properly recognized. In fact, part of the problem may be that some nurses will not even identify what they are doing as scholarly work and therefore will themselves undervalue their contribution. Developing procedures and guidelines will not completely solve this problem; however, it may start to alleviate it. It should be noted that both in written comments and in choosing an appropriate response from several options, respondents in the survey generally focused on level of contribution, rather than status. While at times there was disagreement as to how integral a particular activity was, and therefore what credit it would merit, there seemed to be a high level of agreement that status should not dictate publication credit. This emphasis on valuing contribution emerged as one of the two main themes of the study.

Development of principles and guidelines. The previous section emphasized the need for open discussion concerning levels of contribution and assignment of publication credit. Such discussion would have little chance of succeeding, however, if each individual came with different ideas of what kinds of work contribute to a project and how that work should be valued. The possibility of various contributors having different approaches to this issue was reflected in some of the responses to specific hypothetical situations presented in the nursing survey. Thus, on some questions, opinion was divided between whether certain contributions merited authorship or simply a footnote, or in other questions, whether other activities should be recognized in a footnote or not at all (see Table Three).

In order to avoid such discrepancies, it is suggested that both general guiding principles and more concrete expressions of those principles in specific contexts need to be developed. While it is important to avoid rigidity, it would not be helpful simply to evolve abstract principles. As Diguisto (1994) notes, the more abstract the principle, the more interpretation will be required to apply it to an actual situation. Not only will this lead to greater uncertainty, but those with greater power will be more able to insist on an interpretation which serves their interests. The need for guidelines which are contextualized and fairly specific was revealed by the

responses to the survey, which demonstrated a great deal of agreement at the level of general principles, but more discrepancies when respondents struggled with the dilemmas presented by a particular fact situation (see Table Three).

Principles

The following principles are offered for discussion:

- All significant contributions should be acknowledged, either by way of authorship or a footnote
- The level of publication credit should depend on actual contribution, not status
- In order to be considered for authorship, one must have made significant intellectual contribution to the paper such as actually having written sections of the paper and/or produce data used in the paper
- Other work should be acknowledged in a footnote
- Each author must be responsible for the content of the finished manuscript.

These principles are in keeping with other accepted statements on scholarly integrity, and also reflect all seven of the modal responses (see Table Two). To assist nurses in putting the principles into practice in determining the appropriate level of acknowledgement for various contributions to scholarly work, the following section offers guidelines for both authorship and footnote recognition.

Guidelines for authorship. Designing the research study, developing and testing data collection instruments, analyzing test results or statistics (where this forms a major part of the study), or writing the manuscript would entitle an individual to be named as an author. These suggestions for authorship take account of views expressed by nurses in the 1996 survey, in which developing and testing data collection instruments and writing a manuscript were seen as meriting recognition as author by a majority of

respondents, whereas respondents were fairly evenly split as to whether analysis of test results should result in authorship or footnote recognition.

Once it has been determined who is entitled to authorship, there is still the issue of how to order multiple authors. All the authors must work together to come up with some fairly objective assigning of value to each of the activities carried out. This weighting could change from project to project, depending on the skill and time required to complete each of the various aspects of authorship. Where contributions were seen as equal, respondents in the nursing survey chose various methods of allocating first authorship: assigning it to the person representing the profession at which the journal publication was directed; alternating first authorship where two people collaborate on a number of projects; listing equal contributors alphabetically; or even flipping a coin.

The activities suggested here for authorship status do not include contribution of an idea or authorship of earlier work on which a newer project builds, since neither of these by themselves would seem to warrant authorship. However, permission should be sought before beginning work on ideas supplied by others, and the originator of the idea or the individuals who prepared materials which now form the basis of new scholarly work should be invited to take part. Again, this reflects written comments from the nursing survey, where respondents emphasized the appropriateness of offering those who contributed originating ideas the opportunity to continue with the project if they so chose. If such a person declines further involvement, then his or her contribution should be clearly acknowledged in a footnote and any references to the earlier work should be footnoted as well.

Honorary authorship, such as the survey scenario where the head of a department was listed as an author on all publications written in her department, is not acceptable. It is possible, however, to provide

Table Three: Survey responses: Assigning credit by type of contribution

Authorship	Footnote	No recognition
<ul style="list-style-type: none"> • designing research study • developing, testing data collection instruments • testing interpreting specialized tests • statistical analysis, including determining statistical methods to be used and ensuring correctly applied • writing manuscript • critiquing draft manuscript 	<ul style="list-style-type: none"> • data collection • interviewing subjects • taking subjects through tests • clinical observation • teamwork which formed basis of article written by one member • contribution of staff nurses who wrote paper, basis of director's paper • receiving draft/no changes • planning study/providing only idea <ul style="list-style-type: none"> • building, designing equipment • administrative responsibility • analyzing data • library search/library assistance • working under close supervision • acknowledging department head all articles 	<ul style="list-style-type: none"> • typing • making appointments
denotes overlap in responses		

some recognition for an institution or department through each author's listing their affiliation and having requests for reprints directed to a particular department (Dalhousie University, 1996).

Guidelines for footnote recognition. It would generally be appropriate to give footnote recognition in the following situations:

- critiquing or reviewing a draft
- data collection
- interviewing subjects or having subjects perform tests
- clinical observation
- designing or building equipment
- administrative responsibilities
- statistical assistance, including determining the appropriate statistical methods to use and then applying them; and
- significant library assistance or preparing an annotated bibliography.

As seen on Table Three, many of these items were identified in the nursing survey as deserving footnote recognition; however, there were some discrepancies. While these activities would usually merit only footnote recognition, in certain circumstances some might warrant authorship, depending on whether they form an integral part of the project or require significant skills. The focus for authorship should be on intellectual contributions and independence of work, while a footnote would be more appropriate for mechanical tasks or work done under the close supervision of another. Similarly, while it is not standard practice to footnote clerical assistance, it might well be appropriate to give some form of recognition if there has been significant assistance with a lengthy manuscript.

Conclusion

In building upon the description and analysis of the outcome of the survey of Canadian nurses' views on publication credit, and suggesting approaches for addressing the issues raised, the intent of this article has been to foster interest and discussion among oncology

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nurses. As noted above, the suggestions made here are not intended as final recommendations. Instead, the hope is to stimulate discussion within the specialty and the profession. Obviously, such discussion might lead to changes in emphasis from the proposals here, or the identification of other factors that are relevant in assessing level of contribution to a collaborative project. The purpose of the article is to raise the issue and provide some starting place for the discussion, based on an analysis of the 1996 nursing survey and on guidelines developed by other professions. Earlier studies which revealed discrepancies between work settings in how various contributions are valued emphasize the need for support and guidance in this area. An environment of responsibility and accountability to pursue academic scholarship created by the increasing number of graduate prepared nurses in various oncology practice settings indicates the urgency of addressing publication rights, so that nurses' contributions may be visible and recognized. Including this topic in graduate level curriculums could be a basis for teaching and mentoring nurses in this process. Faculty with joint appointments to various cancer centres or nursing departments are also in key positions to assume leadership in assisting nurses to engage in this discussion. Furthermore, oncology nurses could assume a leadership role in encouraging this dialogue within the special interest groups of the Canadian Nurses Association. ♣

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