Journal of the
American Association of Nurse Practitioners

SPECIAL ISSUE ARTICLE

How to write abstracts for manuscripts, presentations, and grants: Maximizing information in a 30-s sound bite world

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Keywords
Nurse practitioner; advanced practice nurse; writing; medical writing; publishing; writing/*standards.

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Received: 11 February 2017;
accepted: 10 May 2017

doi: 10.1002/2327-6924.12486

Disclosure
Drs. Pearce and Ferguson collaborated on each aspect of this manuscript, including development, review of literature, overall writing, editing, and final revisions for submission. Each author qualifies as author based on criteria set forth by ICJME. Neither author has any conflict of interest.

Abstract

Background and purpose: Exponential growth of published conference and manuscript material, increasingly available electronic access, and heightened expectations for short, quick, and available information have propelled the written abstract into a position of extreme importance for nurse practitioners (NPs). NPs can leverage their abstract writing, to maximize exposure of their work, through presentations, publications, and grants. The purpose of this article is to detail the significance of abstract use and relevance for NPs, and to provide useful details and helpful hints for writing effective and strategic abstracts in a heavily electronic and 30-s sound bite world.
Methods: The manuscript is a brief report. Development procedures included detailed searches (PubMed, CINAHL, Google Scholar). Available literature was compiled and evaluated. Descriptions, examples, and helpful hints were developed and integrated into the manuscript.
Conclusions: Attention to traditions and directions of the organization to which the abstract will be submitted is important. The process requires diligence, iterative writing, a focus on relevant content, and intended audience to maximize success.
Implications for practice: A well-written abstract will move NP-relevant messages to heightened visibility for others. Leveraging the abstract is critical for NP patient care, professional growth, and profession overall.

Introduction

Technology and electronic communication have increased the speed at which information is shared, concentrating large amounts of information in the smallest unit imaginable while conveying the most information possible. Increasing amounts of information can lead to information overload, or overwhelming information saturation, resulting in less information efficiently shared or used by others. There has been an exponential growth in published scientific information, projected to continue (Larsen & von Ins, 2010). Articulating essential, crucial information clearly and concisely is a critical skill to achieve the maximum impact in sharing information for nurse practitioners (NPs). The *abstract*, the keystone unit on which everything in scholarly work is linked, has been used for decades as an important mechanism for presenting large amounts of summarized information in a concise manner.

The importance of the abstract is rising rapidly in our 30-s sound bite world. An abstract is a 100–750 word paragraph that provides the key information necessary to understand a topic and entice the reader to engage in further reading the abstract, a grant application, ideas for conference presentation, or a completed, complex research study. Essentially, the abstract is a written elevator speech, delineating the critical elements of what has been done, or what is proposed to be done, and drawing the reader into the larger body of work the abstract represents. An abstract is typically required when submitting a manuscript for publication, and is the format required to be considered for a conference presentation (poster, podium, or symposium) or for a grant application.

The combined title and abstract constitute, almost uniformly, the information available electronically for published manuscripts, conference proceedings, and grant repositories (Cals & Kotz, 2013; Hicks, 2015; Pierson, 2016). Readers make decisions based on content and format of abstract. Engaging the reader to actually read the abstract is critical, so writing must be clear, concise, succinct, and focused, as well as delivering an enticing and relevant message. Verifying that key terms used in the abstract and the title reflect the work presented, assures the work will be located in electronic searches. Whether for a manuscript, conference, or grant application, the title and abstract are most often the first items found in an electronic search, and might be the only items read about the work being reported or proposed. Anticipating and attempting to meet reader expectations will heighten possibility that an abstract will have a positive impact, and the work represented in the abstract will be appreciated and used.

Purpose

The purpose of this article is to provide the background and significance, as well as fundamental information for leveraging successful abstract writing, including for understanding of the importance of the abstract overall. Included will be details regarding the key components of a well-written abstract; examples across manuscripts for publication, presentations at a conference, and grant application submissions; and obstacles to successful abstract writing that can be overcome easily. Helpful hints are integrated.

Definition of abstract

The abstract is a tried and true, revered technique of providing synthesized, focused, and succinctly written information to summarize material for presentation, publication, or grant application. An abstract is often used to represent a proposed work, while also being used to represent completed work, so serves in a beginning and ending position for scholarship. As a critical piece in scholarly work, the abstract is a tool to be leveraged strategically to represent and highlight the work presented in the abstract. An abstract is generally included with (a) a manuscript, representing a research study, project, or report, (b) for summarizing information to be considered for presentation at a conference or for completed conference presentation, or (c) for providing a synthesized summary of a proposal for grant funding. Thus, the abstract is a versatile tool that is an "in a nutshell" look that represents a larger set of activities or ideas proposed or completed, and allows the reader to understand quickly the information provided. Abstract authorship involves a single to many-authored team, or a corporate or organizational author, generally following recommended guidelines such as the International Committee of Medical Journal Editors (ICMJE, 2016), and instructions of the entity to whom the abstract is being submitted. In a rapidly growing, technologically rich, and information-overloaded world, the abstract has evolved into a critical facet for proposed and completed work in publication, conference presentations, and funding applications.

Abstract importance

A well-written abstract can potentially catapult the writer into view by others, and a poorly written abstract will end up ignored or purposefully discarded by readers and reviewers (Alexandrov & Hennerici, 2007; Pearce & Berg, 2015; Pierson, 2016). The first evaluation of an abstract is generally a peer evaluation, which determines whether the work will move forward to the next level of review. Every abstract is accompanied by a *title*, and although a well-written title can convey substantial information, it also serves to entice a reader into further exploration of the related abstract (National Information Standards Organization [NISO], 1996). A published article with a shorter title has been demonstrated to be cited more often than longer titles (Subotic & Mukherjee, 2014).

However, with increasing time constraints, the reader might stop at the title and the abstract, never moving to the full published work, research study proposal, project report, or grant application. Thus, the abstract becomes the most critical element in engaging a reader to explore work through an abstract, or through a more deep examination (see Figure 1). With conference submissions, the abstract contributes substantial (if not all) weight to the decision for acceptance or even session attendance. The abstract is a very important item, the keystone to knowledge and information dissemination, and should be written with meticulous attention to detail.

The abstract plays an important role in electronic searches. Searching for published information is generally the first step in most scholarly endeavors, whether for a clinical, educational, research, or policy initiative. As the amount of published information mounts exponentially (Larsen & von Ins, 2010), heightening dependence on electronically available information and increasing demands on readers' time, information requires that searching becomes more highly focused. Like the reviewer of an abstract for a conference, the potential reader searching for information electronically will first see a title, then the abstract, and only if the reader is drawn into the title and abstract will the body of a work be considered for additional scrutiny (Andrade, 2011; Cals & Kotz, 2013; George,

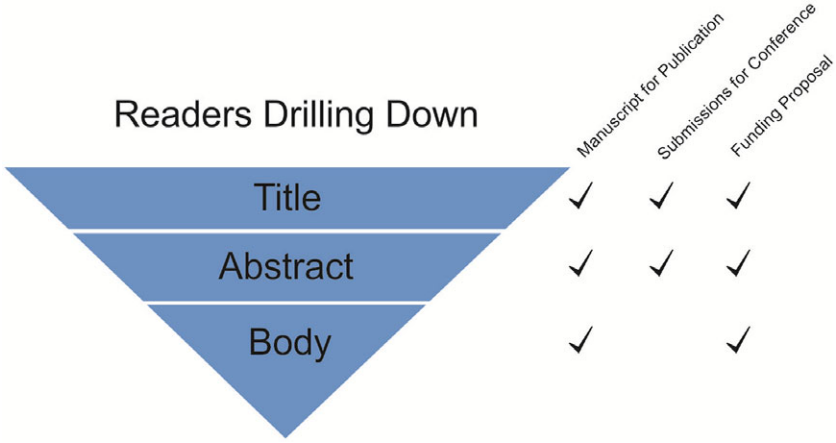

Figure 1 Reader drill-down process, and components required for three submission types.

Ferguson, & Pearce, 2014; Papanas, Georgiadis, Maltezos, & Lazarides, 2012; Pierson, 2016).

Structure of an abstract

The substance of the abstract must represent the work proposed or completed, but depth and breadth are dependent on structure and space limitations prescribed by the organization to which the abstract will be submitted. Abstracts can range from as few as 100 words or less, to approximately 750 words, with an average at about 350–500 words. A longer abstract of several pages is an alternate form used by some organizations for specific meetings or special editions. The lesser the word count maximum, the more challenging to write, because decisions have to be made by the authors about what information to include and what can be discarded. Authors must invest time and effort in developing a well-written abstract (Alexandrov & Hennerici, 2007; Hicks, 2015; Mott, 2014; Pierson, 2004, 2016).

Beyond the number of words, the overall structure of an abstract will vary between two formats: *structured* and *unstructured* (NISO, 1996; Polit & Beck, 2017). The type of work, such as research study, evidence-based project, QI/QA, or case study includes the information that represents the essence of the work being represented: the *who*, *what*, *why*, *how*, and *so what* questions (Pearce & Berg, 2015; Pierson, 2016; Polit & Beck, 2017; Table 1). The traditional abstract, developed decades ago, was an *unstructured abstract*. The unstructured abstract was simply a short paragraph, written to summarize the work represented, and included no headers, subheaders, or specific components, so the content and presentation was based solely on author choice of information. A *structured abstract* was developed years later to include specific section headers to organize and delineate the required information that was deemed essential for scientific reporting (McNinch, 1949; NISO, 1996). Thus, the structured abstract is more specifically prescriptive in content and order of content. Although the categories in a structured abstract are labeled differently for various journals and conferences, typically those categories include such focus as *background and significance*, *methods*, *results*, and *implications* (Alexandrov & Hennerici, 2007; Pearce & Berg, 2015; Pierson, 2016). Therefore, the only significant organizational difference between a *structured* and *unstructured* abstract is the use of headers to organize the information. With electronic submission processes, often the headers are built into the electronic system, so the writer simply adds the content into each of the electronic fields or sections.

There are general guidelines available regarding the recommended structure of the abstract that are more specifically focused on manuscript publication, but are helpful for all abstract writing for any purpose. Every organization will use some form of these general recommendations, but will refine the form to the unique needs of the organization. Essentially the same information goes into every abstract, but must be tailored to meet the expectations and delineated parameters of the organization to which the abstract is being submitted (Mott, 2014; Pearce & Berg, 2015; Pierson, 2004, 2016). Table 1 includes general guidelines for a variety of designs, including evidence-based practice (EBP), quality assurance (QA), and others.

- The NISO guideline (1996) for abstract writing has recommendations about the appropriate format for abstracts. The NISO guidelines (1996) are prescriptive, but meant to be broad guidelines. The guidelines also differ between two categories of abstract: *informative* and *indicative*, with the indicative for more descriptive abstracts, and informative used for completed research results. The NISO guidelines (1996) provide a useful tool in

Table 1 Cross-walk of various abstract types (e.g., research, EBP, QI/QA, case study)—comparison and contrast on elements

Structural elements for abstract by type of scholarly work				
Element	Research study	EBP (IMRAD)	QI/QA	Case study
Why	Background/significance (all about existing evidence, relevance to particular arena, or group)	Introduction: Why did you do what you did/or why do you want to do what you are proposing?	Introduction, Background, Problem	Introduction: Importance/significance of the particular case in terms of context, epidemiology, etc.
What	Purpose (and/or objective)	Purpose included in Intro [what did you intend to do? *The purpose (or objective) for this project was . . .*]	Purpose (or objective) included in Intro	Succinctly written case scenario context
Who	Setting and sample (or population) [what venue, with whom]	[include in methods]	With whom (setting, population, group) did you do/will do?	Details included in overall scenario
How and When	Methods	Methods	What did you do?	Document details/steps
	Research design	Identify as EBP, unless clear design can be identified (e.g., pre/posttest, correlation or comparison, etc.). EBP can use traditional design format, but for clarity need to confirm is EBP context	How did you set up procedures? Is there a name for the manner in which done? QA/QI can use traditional design format, but clarify that is QA/QI context	Identify as case study (clinical case or systems case in the scenario of a single system case)
	Procedures	Steps in process	Steps in process	Steps in process
	Measurement tools for key variables	Measurement tools and processes	How done; with what tools and processes	
	Analysis	Analysis of outcome; how was outcome evaluated	How assessed outcome	Synthesis of clinical data typically
Outcome	Results—typically statistical results for quantitative research, narrative findings for qualitative research. Synthesized/interpreted	Results: Details regarding outcome	Results	Outcome of case
Discussion and Next Steps	Discussion of findings/results/outcomes, with implications for practice, scholarship, research, service, teaching, policy . . . next steps recommendations, lessons learned			Implications for case and others

Note. EBP, evidence-based practice; IMRAD, introduction, methods, results, and discussion; QI/QA, quality improvement/quality assessment.

providing standardized and detailed informational guidelines, and are highly relevant to scholarly reporting for NPs.

- The IMRAD (Introduction, Methods, Results, and Discussion) format was developed in the 1920s, and discussed intently into the 1940s, when there was increasing emphasis on managing increasing amounts of scientific literature, including development of consistent abstracts, abstracting and indexing procedures, and overall management of information (McNinch, 1949). IMRAD is widely recommended in presenting results of research or other projects such as evidence-based projects, as well as proposed work. There are recommendations that quality assurance projects require a different format (Moss & Thompson, 1999), but technically the same items are reported regardless of design.
- The International Committee of Medical Journal Editors (ICMJE, 2016) provides recommendations for publication, specifically integrating issues related to publication ethics, including recommendation for use of the IMRAD format for some types of reports.

Recommendations by NISO (1996), ICMJE (2016), and the IMRAD format (McNinch, 1949) are used by many journals, conferences, and grant agencies, and are tailored to the unique needs of the institution. Regardless of

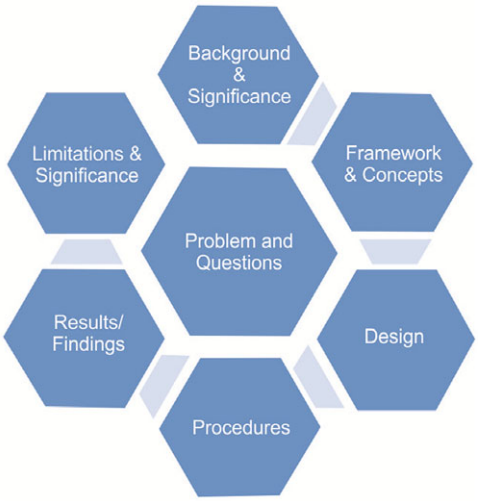

Figure 2 Major linked categories for abstract, sequenced for development process.

format used or recommended by an organization, an abstract must reflect certain basic information, and should be tightly integrated with the work being reported.

The major categories in an abstract follow and reflect both the structure of IMRAD and recommendations by NISO (1996), ICMJE (2016), IMRAD format (McNinch, 1949), as well as current textbooks, such as Polit and Beck (2017). The major areas should all relate to the question that was posed (or projected) in the work, and the question should start and drive the work (see Figure 2). Figure 2 expands upon the components.

Purpose

Describe the purpose of your project or research in one sentence, or integrate with another component of the abstract in one sentence.

Background/significance

Include a convincing statement regarding the background and importance of the work in this section. The statement should be a succinct statement based on review of literature and any gap that is identifiable.

Objective/research question

Include a declarative statement regarding the objective and research question. This information can be integrated as part of Background and Significance if there is no unique section for this information.

Framework

There is typically no unique space to include information on theoretical or conceptual framework in an abstract, but the information can be included if there is sufficient space, or the information can be referenced into another statement. For an abstract a single inclusion can be used, without substantial detail, and combined with other information. For example, "using Diffusion of Innovation Theory, use of the newly installed *NewApp* was evaluated in semi-structured interviews with 35 staff nurses in three units of a 500-bed urban, acute care hospital," captures essential information regarding the framework, the sample and the setting, and general process in one sentence.

Methods

The methods section generally has only one major header and is limited in space, but crucial to include for a research-based endeavor or a project. For more conceptual or theoretical pieces, the methods section takes on a different hue. The following components fall under Methods and can be detailed uniquely, or as integrated information under the section, depending on space allocation.

Project design. Name the project design. If the design does not fit a traditional model, blend the appropriate descriptive terms to suit what is being reported or proposed. Consult a research textbook, such as Polit and Beck (2017) for help with identifying design, or a framework that provides listing and relationship of design (Pearce, Christian, Smith, & Vance, 2014).

Ethical considerations. There is typically no space for commenting on Ethical Considerations in an abstract, but reviewers always have ethical considerations as one aspect they consider when reviewing an abstract. If there is sufficient space, a comment about Institutional Review Board or informed consent can be included, but is not usually critical.

Setting and Sample, or Population, are typically included together, labeled as Setting and Sample under Methods section, but to develop the sections, separating assists in organizing the information needed for a complete description.

Setting. For any research or project involving a sample or population, it is important to provide sufficient information for a reader to understand at least the general location, especially if a unique space, but with caution to confidentiality. Clearly identify setting (e.g., first the overall population), setting (e.g., state, region, city) building from larger to smaller, then the specific place—ambulatory clinic, acute care/tertiary facility, nursing home, agency, school is helpful.

Sample. Provide information about the specific sample or population (e.g., relevant age, gender, ethnic background, education) in order to give context for the work being reported. Integrate inclusion/exclusion criteria if at all possible, or simply make it clear (e.g., use of phrase *adult men* automatically implies *adult women* were excluded). If appropriate for design, a power analysis can be detailed in the body of the paper/presentation, but not necessarily included in the abstract. Identify the sampling design (see any research textbook) using traditional terms to convey succinct information and reduce wordiness. For example, the preponderance of research or projects done using quantitative designs integrate a *convenience* sample, and with qualitative design a *purposive* sample. Random *selection* is more often seen in large, national, or international studies, but random *assignment* can be done in any design. Randomizing processes are detailed in research textbooks, such as Polit and Beck (2017).

Measurement tools/instruments. Integrate at least the name of any tools—questionnaires, instruments, surveys—utilized. Detailed information (e.g., reliability and validity) is not typically included in an abstract, but included in the larger written manuscript or presentation. If reporting a completed research study, or project, something about the results or outcomes should be included in the later section on results, thus conveying clearly the questionnaire used, e.g., "Beck Depression Inventory-II scores averaged 28."

Analysis. A general statement about analysis can be integrated in the analysis section, and is important in proposed work (e.g., what will be done, in general terms). With completed work, providing information about results must be accompanied with sufficient information that the specific calculation or analysis is conveyed. For example, if a *t*-test result is provided, the notation ($t(27) = 3.1$, $p = .02$), provides the reader with sufficient information to know that a *t*-test was completed with a sample of 27, the result of 3.1, and was statistically significant. Something as basic as a means and standard deviation provides substantial information for the reader (e.g., $M = 4.2$, $SD = 1.3$). If presenting results that are completed, provide at least some results, but do not attempt to provide all results. If proposing, provide at least a general statement about anticipated calculations or analysis parameters.

Results

Providing at least one to two comments about results and relevance is critical for completed work represented in the abstract. Information can be something descriptive for qualitative type work, or several statistical results (e.g., *t*-test, ANOVA). There is never sufficient space to provide all results.

Implications

This section will likely be included in only lengthier abstracts. Regardless of topic or procedures, there are always implications in at least one or more of these categories: clinical practice, research, education, policy. For either proposed work or completed work, identifying one or two items that are clearly linked is helpful for the reader to understand the potential impact of the work.

Limitations

This section is another that is likely to be included only in lengthier abstracts, but always included in presented or published work. Every study or project has limitations. This information will be included in the larger work.

Title and keywords

Two increasingly important, pivotal, aspects of completing an abstract for any purpose involve developing the title and keywords. Often these two items are left as the last points of information the author develops, when writing fatigue has set in and the writer is cranky. Ironically, these items are the first items a reviewer/reader sees, thus they lead the reader's first impression of the work, and can make a difference in whether or not the work is read or used.

For presentations, grant applications, and publications, reviewers are often assigned reviews by matching keyword selection with expertise of the reviewers. For indexing in electronic databases, and for locating in electronic databases, the terms used in the title and keywords assigned to the article do make a difference in helping searchers find the work (NISO, 1996). Subotic and Mukherjee (2014) demonstrated that in psychology literature, a shorter title (<15 words) garnered more attention in terms of citation than did longer titles. In an era of increased dependence on electronic searches, a lack of appropriate keywords may lead to publications being missed. Integrating appropriate keywords might assure that work is located in electronic searches, and read by a wider audience (Pierson, 2016). Authors are required for most abstract submissions to identify three to five keywords to be used with the submission. For publications that are indexed in electronic databases, controlled vocabularies of keywords are employed. For example, in PubMed in the National Library of Medicine (NLM; PubMed), indexers assign Medical Subject Headings (MeSH) derived in a large part from key concepts and processes identified in the title and abstract (Pearce, personal communication with NLM, December 19, 2016). Understanding MeSH headings is helpful in identifying appropriate keywords. The NLM provides user-friendly tutorials and listings of

all MeSH headings: Tree search: https://meshb.nlm.nih.gov/#/treeSearch, MeSH Browser: https://www.nlm.nih.gov/mesh/mbinfo.html

Recommendations for a well-written title can be found in most writing textbooks, formatting guidelines, such as the American Psychological Association (APA, 2010), or in research textbooks such as Polit and Beck (2017). Polit and Beck (2017) and APA (2010) recommend a well-written title be no more than about 10–15 words, including representative terms for the concepts involved, the sample or population, and, if possible, methods information. The title needs to inform the reader of the substance of the work. In instructing on constructing titles, Alexandrov and Hennerici (2007) are less prescriptive, recommending to writers to use the title to provide as much clear and dynamic information as possible. Alexandrov and Hennerici (2007) suggest avoiding the use of a question in the title, "unless the issue remains unsettled or you came up with a clear answer" (p. 256) to the research question posed. Others provide general information and recommend following the instruction of the target organization (Cals & Kotz, 2013). Andrade (2011) points out that although most readers start with reading the title, if the title does not draw them into the work, the reader simply moves on to another activity or more interesting title. Therefore, if a title conveys insufficient information to interest a reader in pursuing further information, the reader will not read any further. Subotic and Mukherjee (2014) demonstrated in a research study on published articles in psychology that shorter article titles ($M = 10.5$ words, $SD = 4.5$) were downloaded and cited more often than those with longer titles (maximum was 25 words in length); the authors also emphasized that the information conveyed in the title was critically more important than how the information was stated.

Citations

Typically, citations are not included in a written abstract, and for some journals and conference abstracts are explicitly excluded in instructions provided. Whether to include citations or not must be decided based on the work. For example, JAANP has an explicit statement in the author guidelines to exclude citations from an abstract (Journal of the American Association of Nurse Practitioners, 2015).

Timing for writing an abstract

There is no rule or guideline, or right or wrong, about when to construct an abstract in context of completing the work the abstract represents. Timing is dependent on the thinking and habits of the writer. Regardless of when the abstract is written, most writers use an iterative, refining approach, constantly tweaking the abstract to fine tune the information and to assure the directions from the intended submission points are followed. For work completed, the abstract is generally written in past tense; for work to be completed a future tense can be used. General rule of thumb is to follow the directions of the organization to which the abstract will be submitted, and to meet reviewer and reader expectations of clarity and consistency. Less is more and succinctness is key.

Writing to the audience

Whether a journal submission, conference presentation, or funding application, writing to the audience is critical. Every piece of writing goes through multiple levels of review, triaged through organization staff, editors, and review panel members. First the work has to move through review by the editors, conference committees, managers of some sort, then reviewers. The exact pattern of review is different for every agency. The audience always begins with the initial reviewers, but the initial reviewers most often represent the larger audience, or are drawn from the larger audience to whom the writer is writing. Production reviewers are more interested in technologic aspects (e.g., did writer follow the instructions for labeling, structure, word count, etc.). Editors and reviewers review content and substance, as well as formatting, organization, and writing style. For example, the editor of this journal is a geriatric NP, with administration, educational, and research expertise, and who understands the journal audience. Reviewers who will be selected by the editor are also NPs, and have a wide and deep background in clinical practice, research, education, and policy—they represent the audience as well, and know the audience well. The abstract can make or break a work during the review process—drawing editors and reviewers in to the work or repelling them from the work. Rejection is often related to lack of relevance for audience, or for neglect to attend to directions (Alexandrov & Hennerici, 2007; Andrade, 2011; Cals & Kotz, 2013; Hicks, 2015; Pierson, 2004, 2016; Wood & Morrison, 2011).

Following the directions

The statement of a widely respected nursing science researcher, "Read the Directions, Believe the Directions, and Follow the Directions" (personal communication, M. Lentz, c2000) is a critical component to share with anyone writing an abstract for submission for a conference, manuscript for publication, or a funding application. Generally, explicit directions are provided by every journal, conference call for abstracts, or call for funding, and provide detailed instructions about what information to include in an abstract, and how to structure the

abstract. The directions are applicable to every writer, and following the directions will heighten markedly the probability of being accepted for publication or presentation, or for being considered for funding. Not following the instructions—missing even what feels like the smallest of items to a writer—can result in being declined without further review.

Summary

The abstract is one of the most critical formats for sharing information regarding research, practice, education, and policy, and requires careful attention in development. It is increasingly important for authors to utilize keywords and MeSH terms to increase the likelihood of work being identified during database searches, and leveraging the sound bites the abstract represents. While personal writing styles vary, the process of creating a well-done abstract is iterative. Clear structure and attention to detailed instructions and guidelines is important to construct, review, and complete the final product. The keystone to scholarly work, the abstract plays a critical role in contributing to scientific knowledge, dissemination of scholarship, and ultimately, improving patient care.

Helpful Hints

Reviewers—Reviewers will ask, what is the purpose of the authors, what is being reported, and why does the work matter? Answers to these questions must be discoverable in the abstract.

Design—Delivering the project design (e.g., pre/posttest design) or form (e.g., brief report) in a sound bite itself will help the experienced reviewer know what to expect in the work, and where the work falls in a hierarchy of evidence. Knowing that information will set reviewer expectations for the review, and lessen the burden of work for the reviewer/reader.

Sample—Using numbers in the sample section helps the reader to understand the proposed or completed work being reported in the abstract. Using tradition signature, such as $N = 100$ indicates a total sample (either projected to be recruited or completed). Adding additional information could be done if sufficient space: $N = 100$ (female = 52; male = 48), or $N = 100$ (*Mean* age = 14.5 years; $SD = 1.2$), thus conveying ample information in a relatively small space.

Structure—One of the best ways to develop any abstract, regardless if attempting structured or unstructured, is to use headers and subheaders, and then if directions dictate unstructured format, simply remove the headers. If a lesser number of headers is required, then collapse the headers originally used to guide the writing. Use of headers will heighten the probability that the writing will meet reviewer expectations for type and organization of content.

Writing—Plan ahead. Write rough drafts of the abstract and then take time to ponder. Challenge increases as word restriction decreases: Writing a 100-word document is much more difficult to complete than a 700-word document (Pearce & Berg, 2015). Writing a larger abstract and then cutting words from the abstract is always easier than trying to generate a tightly written, succinct abstract from the start.

Directions—Reviewers expect that authors can follow directions. Unfortunately, abstracts are rejected regularly because requirement components are missing or the work is poorly done. Reviewers do not have the option to clarify, ask questions, or ask authors to provide more information.

Examples

As an example of several abstract components, development of this manuscript is used. The Journal of the American Association of Nurse Practitioners (2015) includes specific instructions for authors that direct writers to provide a structured abstract, using a strict 200-word maximum including categories of: "Background and Purpose, Methods, Conclusions, and Implications for Practice." The authors consulted the guidelines for direction, and then followed the instructions. The abstract for this manuscript was written after the manuscript was developed, and then refined at multiple points of editing the final manuscript. At the initial writing, the word count was 350 words, which was then streamlined to ≤200 words as required. The final editing touches were completed just prior to submission.

A title was constructed at the beginning point of developing the manuscript, in order to remind authors of the purpose for the writing and to meet the characteristics of a well-written title. The title was changed at least 10 times in the process of writing, tweaking one word here, another there, and then pondering for a day or two helped to hone the title to the final form. The final title captured purpose and key concepts, with what was assessed as sufficient pull for those interested in learning more about successful abstract writing. A final check that the title met the journal directions was done during the last manuscript revision.

Keywords were developed by searching the MeSH headings database in PubMed, and selecting terms that matched the manuscript content. Final keyword selection is dependent on the editor, production staff, and the indexing abstracters for the electronic systems in which the journal is indexed, so final keywords were not necessarily determined by the authors.

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