

# How to Prepare an Abstract to Submit to a Scientific Meeting Research

Follow the directions below to construct an abstract. These instructions can be used for any research abstract.

## Helpful hints for writing abstracts:

Number one. A scientific abstract is not creative writing. That may sound very simple, but clarity and directness are the keys to presenting your material. Overuse of abbreviations or jargon does not substitute for good writing.

- ✓ Abstracts do not have adverbs that attempt to show importance to the data. The data are the data. So don't use words like, very, quite, extremely.... If you have to use an adverb to describe your study or study findings, then you do not trust the importance of your study. Do not use the word *significant* unless it is in the context of a statistical analysis. In the science world, statistical significance is shown by statistical testing. Changes can have clinical significance (with or without statistical significance), but you only use the word significance in those instances.
- ✓ If you use an abbreviation spell it out first and put the abbreviation in parenthesis.
- ✓ Commonly known abbreviations can be used without first spelling out. For example, in the nursing world RN, LPN, PRN are common enough and are not required to be spelled out first. But NA (nursing assistant) is not. Hospitals usually assign a term for non-licensed patient care assistants, so this abbreviation would be spelled out first. [For example: Patient care technician (PCT), nursing technician (NT)].

Number two. **Follow the directions** as outlined in the author guidelines for the meeting. Basic instructions:

- ✓ If there are suggested headings, use them.
- ✓ If there is a word limit, stick to it.
- ✓ If you are asked to provide objectives and references via a particular format, provide them.
- ✓ If you are asked to state that your study met human subjects' protection, indicate this in the introduction or the section recommended by the author guidelines.

Number three. Think of your audience as well as your reviewers as you construct your abstract.

- ✓ Your study may have implications for physicians, social workers, pharmacists, bedside nurses, as well as other health care professionals. Who will your audience be? Don't be surprised that physicians meeting review committee do not accept an abstract about the psychosocial aspect of your study although the data may be acceptable in a scientific meeting that attracts nurses and social workers.
- ✓ The first question the reviewers answer on the critique sheet is "Is the problem/purpose of the study clearly stated?" So take time to clearly state your problem. Construct your purpose statement before you construct your introductory sentence(s). That way your introduction supports your purpose statement and not the other way around. The purpose statement (or research question) is the pivotal piece of your abstract. Your methodology supports your purpose, you present your results based on the question that you ask and your conclusions will also relate back to the purpose statement.

You have read the basics and now you are ready to develop a scientific abstract. You know the audience and you have written your purpose statement. Let's take each section of an abstract and examine what should be included.

## Background/significance of problem (use the words suggested in the author guidelines).

This section is for your purpose statement (Polit & Beck, 2004). Don't confuse your reader with excess verbiage. For example, if your study examined a type of donor management protocol that differed from the gold standard donor management and the purpose of your study was to compare number of organs retrieved based on your new management protocol, don't open your abstract with a statement about the shortage of organs, the number of people dying while waiting and that regulatory bodies don't appreciate the impact of everything that you do as a donor coordinator. By the time the reader gets to your purpose statement you have lost them.

Be brave, start your abstract with the most important part of the study; the purpose. "The purpose of this study is to examine....." Support that statement with one or two sentences that indicate the need to do this study. If

you are asked to include human subjects' protection, then do so unless you did not have your study reviewed by an institutional review board. In that case, don't submit your study for a scientific meeting. You are ethically bound to provide protection for subjects in research studies. If your study underwent institutional review and was approved, you can simply state: "This study met the guidelines for our institution's human subject protection." (NATCO, 2004)

## Research question/hypothesis

Use this section to simply state your research hypothesis followed by the research question. This section can be short and sweet. If you do not have a hypothesis, just state your research questions. As you recall from your research course, hypothesis generated studies usually emerge from previous known work in the field. If your study is exploring a concept, there is insufficient evidence to generate a hypothesis led study.

Example of a hypothesis generated research question:

The research questions emerged from the hypothesis that improving teamwork performance will increase perception of unit team work and decrease missed nursing care. The research questions measured the influence of a team development program on teamwork knowledge, unit teamwork perception, and missed nursing care.

Or

Example of research question not generated from a hypothesis.

The research question for this study was: What is the frequency and reasons of self-reported missed nursing care in medical surgical nurses?

## Research Method.

Describe the study methodology. Include how the sample was chosen and the procedure that the subjects did to be a part of the study. State the outcome variable(s) and how you plan to (or did) measure the outcomes. What instruments were used (reliability and validity are good things to address, but space may not be sufficient to go into detail). You can state that questionnaires X, Y, and Z were obtained that had reliability and validity for the study population. You have addressed it and can give more supportive detail in your presentation. Your study most likely had many outcome variables, but look at your purpose statement. What outcomes do you need to support your purpose statement? Stick to variables that support your purpose statement. Save the others for future abstract submissions.

## Findings

The results are the meat of your abstract. What did your analyses show? Use the same order in the results section as you stated in your methodology section. Describe your sample. Describe the outcomes based on how you stated them in your methods section. For instance, if you used X, Y, and Z as outcome variables, discuss the results in that order. What differences were found?

Again, your study may have had many results, but stick to the results that support your purpose statement. For scientific meetings, it is appropriate to show p values, significant or not. Sometimes a table shows your results clearly, but depending on the submission guidelines you may or may not be able to include a table. For example, some online submission formats are not set up to accept tables or figures.

## Discussion of results

This section is the interpretation of the findings. Be careful to not go beyond the data. For example, using the study introduced in the purpose statement (new organ donor management protocol on the number of organs retrieved), say you found that the new protocol showed a statistically significant difference in the number of the organs retrieved, but no difference in the immediate function of those organs after transplantation. So what does that actually mean?

Here's an example of this discussion (shortened for an abstract)

The new protocol increased the number of retrievable organs and no difference was found on the ability of the organs to function when transplanted. The new protocol did not diminish the function of the new organs when compared to current practice.

## Implication for practice

In this section takes your discussion and helps the review (and thus your audience) understand your findings for today's relevance. How can your findings be used in other populations, others in the profession? Don't get too global with your results. It is sufficient to say, with the population in your study, that the differences are important enough to evaluate further or provide an intervention to test it in a larger study.

Helpful Hint: Once you completed your first draft, do a word count. Where do you need to cut? After a couple of edits, let someone else read and edit it. Writing an abstract takes time and can be particularly challenging if your word count is limited. Three hundred words or less challenges each of us to state clearly and succinctly what the purpose and findings of our study. Remember; describe the purpose of the study, how the study was conducted (or to be conducted), what was found and the implication for practice.

## References:

- NATCO. (2004, March 1, 2005). NATCO call for abstracts, case studies, and research grants. from [http://www.natco1.org/documents/NATCOcallforabstracts2005\\_000.pdf](http://www.natco1.org/documents/NATCOcallforabstracts2005_000.pdf)
- Polit, D. F., & Beck, C. T. (Eds.). (2004). *Nursing research: Principles and methods* (Seventh ed.). Philadelphia: Lippincott Williams & Wilkins