Clinical Methods

Writing An Effective Abstract

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THIS ARTICLE demonstrates the application of criteria for writing and critically reviewing research abstracts. Two versions of an abstract, based on one study, are presented. The first abstract is analyzed according to the guidelines for abstract critique. The second abstract is the revised version.

Nurses frequently review published abstracts and submit abstracts of their own studies for publication and/or for paper or poster presentations. The importance of a well-written abstract for acceptance by review committees is exceeded only by its importance to an intended audience. A correctly written abstract is the key to dissemination of information, and one way to write an abstract correctly is to use accepted criteria for its development. The writer then must submit the abstract to rigid self-critique or to review by colleagues.

DEFINITIONS

What is an abstract? An abstract states the purpose of the work, the method of study employed, and other important aspects of the work, including the findings and conclusions.

An abstract is sometimes confused with a summary or an annotation. A summary is a restatement of the substance of a work and occurs at the end of a section or of the total work (American National Standards, 1971). An annotation of a work contains one or two general statements about the substance of a work and serves as an extension of the title of the work (American National Standards, 1971; Cremmins, 1982). According to the *American National Standards for Writing Abstracts*, however, an abstract is, "an abbreviated, accurate representation of a document" (p. 1).

Ashworth (1973) referred to the *art* of abstract writing:

> To take an original article, understand it and pack it neatly into a nutshell without loss of substance or clarity, presents a challenge which many have felt worth taking up for the joys of achievement alone. These are the characteristics of an art form. (p. 64)

CRITIQUE OF AN ABSTRACT

A sample abstract is presented in Table 1; its lines are numbered to facilitate the critique process. The criteria utilized for the critique are provided in Table 2.

To start with, the title of the work must be examined. It should identify the problem area, the variables studied, and the study population. The title of the abstract in Table 1 is unclear. Although the general problem area is presented, the author does not specifically state the study variables. The reader can only assume the study population was nursing students.

Criterion 1. The purpose stated in the abstract in Table 1 (lines 1 to 3) is to determine the value of

Table 1. The Original Abstract

	Learning and Life Experiences Prior to Preclinical Testing of Proficiency in Basic Nursing Skills
1	The purpose of this study
2	was to determine the value of preclinical proficiency
3	testing
4	prior to beginning the medical-surgical (adult
5	health) nursing course.
6	The problem was to determine the correlation
7	between assumed stressors and the test score.
8	A survey of learning and life experiences was
9	conducted,
10	and data were submitted to analysis
11	utilizing Pearson product-moment correlation *r*.
12	Significant findings
13	were that students should be tested only after at
14	least one practice
15	or supervised actual performance
16	within a year of course completion;
17	students do best if that course was completed within
18	the given school.
19	The term *proficiency* must be clearly defined,
20	and test items need to reflect the course objectives
21	originally
22	presented to the student.
23	The student is entitled to supervised practice
24	soon followed by testing.
25	Guidance, feedback, and support are requisites
26	to accountable performance.

Table 2. Criteria for Critique of Abstracts

Criterion 1. State the purpose, methods, results, and conclusions presented in the original document, either in that order or with initial emphasis on results and conclusions.

Criterion 2. Avoid including background information or citing works of others, unless the study is a replication or evaluation of a given work.

Criterion 3. Make the abstract as informative as the nature of the document will permit, so that readers may decide, quickly and accurately, whether they need to read the entire document.

Criterion 4. Include in the abstract only information that is actually contained in the material being abstracted.

Criterion 5. Verify that all quantitative or qualitative information used in the abstract agrees with information contained in the full text of the document being abstracted.

Criterion 6. Use standard English (as appropriate); use precise technical terms; follow conventional grammar and punctuation rules.

Criterion 7. Give expanded versions of lesser known abbreviations and acronyms; verbalize symbols that may be unfamiliar to the intended reader.

Criterion 8. Omit needless words, phrases, and sentences.

Criterion 9. Use fewer than 100 words for notes and short communications. Use no more than 250 words for most papers and for portions of monographs. Use no more than 500 words for theses and long reports.

Criterion 10. Prepare an abstract that access services can reproduce with few changes, copyright permitting.

* Adapted from the *American National Standards for Writing Abstracts* (1971); Ashworth (1973); and Cremmins (1982).

preclinical proficiency testing; this implies the author has measured the *value* of testing. Therefore, the terminology in the title is incongruent with the terminology in the purpose, since the title suggests that basic skills were tested, while the abstract refers to the value of testing (lines 2 and 3). Variables are not clearly specified. Are "assumed stressors" variables (line 7)? If so, what are the specific stressors? Also, was this study guided by a theoretical framework?

The survey method was used to collect part of the data (lines 8 and 9). The author does not mention the research instrument, the number of subjects invited to participate, the method of selecting subjects, or the response rate. The testing method used for the proficiency examinations is unclear. Although the Pearson product-moment correlation coefficients were used in data and analysis, correlated variables are not stated.

The author does not report the statistical significance of the study results (lines 12 to 18), and the terminology is not clear. To what do the phrases "that course" (line 17) and "given school" (line 18) refer?

The conclusions of the study are obscure. The author states: "The term *proficiency* must be clearly defined" (line 19). What is the linkage between this conclusion and the study findings? Also, this is the first hint of a possible dependency between the subjects' proficiency level and understanding of course objectives (line 20). On what basis does the author conclude that the student (subject) is entitled to supervised practice (line 23)?

The final statement (lines 25 and 26) implies that the variables guidance, feedback, and support were used as predictors of "accountable performance." Was multiple regression also used for data analysis?

Criterion 2. In this abstract (Table 1), the reader is given no indication whether this is a rep-

Table 3. The Revised Abstract

The Relationship Between Varied Learning and Practice Experiences of Student Nurses and Their Proficiency in Basic Nursing Skills

The purpose of this survey was to determine the correlation between the learning and experiences of student nurses with their proficiency scores on tests of basic nursing skills before beinning their adult health (medical-surgical nursing) clinical nursing course. The work was based on accepted theoretical frameworks for education and testing of skill proficiency. Eighty student nurses in a baccalaureate program were administered a questionnaire designed by the writer to assess their learning and practice background in basic nursing skills. Major variables assessed were transfer from school at which the basic skills course was completed; time lapse since course completion; number of supervised and independent practices of each skill; and number of supervised and independent actual performances of each skill. A Pearson product-moment correlation was computed between the test score and each questionnaire item. Significant relationships were found between proficient performance of basic skills and students who had practiced such skills at least once ($r = .6$; $p < .05$), supervised or not, and for those who had had at least one supervised performance of the skill involving direct patient contact ($r = .8$; $p < .06$). These relationships prevailed only for those students who had completed the basic skills course within the year prior to testing when that course had been completed in the target school. The findings indicate that students must be given an opportunity to preview proficiency objectives and to practice before being subjected to testing at the beginning of a new course.

lication study or an evaluation of a given work. Prior works are not cited.

Criterion 3. In Table 1, neither the abstract nor the title is clearly informative of the content of the work. The reader's decision to read the work would need to be based on a general interest in proficiency testing of basis nursing skills rather than a specific interest in the goals of this study.

Criterion 4. The author has included conclusions and generalizations regarding material probably not contained in the work. Areas not reported as having been tested are found in lines 23, 25, and 26. Also, there is no evidence that the study included a survey of proficiency levels (line 19) or a study of test structure based on objectives (lines 20 to 22). The value of testing is not reported as a finding, nor are assumed stressors discussed beyond line 7.

Criterion 5. Since only the abstract is provided here, the reader cannot judge the agreement of information between the abstract and the larger work.

Criterion 6. Standard English has been used, but some variables have not been clearly defined, and words have been used inconsistently.

Criterion 7. All terms are probably familiar to the intended audience, that is, actual and potential nurse researchers.

Criterion 8. Needless words are included in the purpose and problem statement (lines 1 to 7). Beginning with line 8, a concise statement of the purpose could have been made, incorporating part of line 2 and lines 3, 4, 10, and 11. (See revised abstract, Table 3). Lines 19 to 26 add nothing to this abstract; nor do these comments reflect accurate conclusions based on reported study findings.

Criterion 9. The abstract contains an acceptable number of words (135), thus meeting this criterion—unless different stipulations were made by reviewers.

Criterion 10. This abstract is obviously not ready for publication.

CONCLUSION

Although self-critique is difficult because of subjectivity, one must either gain self-discipline in this matter or submit the work to colleagues who are direct, objective, and knowledgeable.

REFERENCES

American National Standards Institute. (1971). *American national standards for writing abstracts.* New York: Author.

Ashworth, W. (1973). Abstracting as a fine art. *Information Scientist, 7*(2), 43-53.

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Presenting Research to Nurses in Clinical Practice

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TWO NURSE RESEARCHERS present their studies of patient falls at a clinical conference on gerontology nursing. When the participants' evaluations are summarized, one presentation is rated as a highlight of the program. The successful presenter is convinced that conferences for nurses in clinical practice provide an excellent opportunity to disseminate research findings and to change patient care practices.

The other research presentation receives poor ratings and comments such as "a waste of time," "too many statistics," "boring." This researcher vows never to present a study to a general nursing audience again.

Why this discrepancy in experience between the two research presenters? Are most nurses in clinical practice and management interested in nursing research? Can they understand it? These questions arise because researchers and clinical nurses come to educational programs with different goals. The researcher has been immersed in the theory, methods, and statistical analysis of a project. When considering how to present the work, the researcher is ready to discuss the theoretical framework and to relate the framework to the design. The researcher is drawn to explaining the statistics so that the audience understands the findings and