

abstracts

Abstracts are concise summaries that help potential readers decide if they will read your work. Since your abstract will often be your readers' first interaction with your piece, you must write with them in mind: people will not read what they consider to be irrelevant or uninteresting. This handout will help you write an effective abstract.

Essential Elements

Accuracy

Just as moviegoers are often frustrated when a film does not live up to the expectations created by its trailer, readers will be frustrated if your abstract is not an accurate preview of your paper. Do not include information in your abstract that does not appear in the body of your text.

Concision

In an abstract, every word counts. Make judicious use of active and passive voice, and scrutinize adjectives, adverbs, and prepositional phrases. While most abstracts range from 150 to 250 words, obey any limits requested by the journal, conference, or professor.

Clarity

Your abstract should function as a stand-alone document. Avoid unexplained acronyms and jargon that may be unfamiliar to your audience.

Keywords

When thinking about which keywords to include in and along with your abstract, ask yourself, "What sort of search would return my abstract as a result?" Consider the sort of search terms you use in your own research.

Basic Abstract Format

While there are slight variations between fields and between specific types of reports, most abstracts contain four basic sections: problem and purpose, methods, results, and conclusions and implications. The best way to understand how these general principles work in your specific discipline is to read several abstracts from leading journals in your field.

Problem and Purpose

The opening sentences of your abstract are your opportunity to seize your readers' attention. Be direct. State the problem in a sentence, and, when stating your purpose, be explicit (e.g., "The purpose of



this study is to...”).

Methods

Remember that your abstract is intended for a specific audience—usually colleagues with a working knowledge of your field. Ask yourself, “What are the *most* significant details about my methodology?” Do not waste space explaining concepts familiar to your audience.

Results

Again, you need to ask yourself, “Which results are the most significant?” Focus on results that relate most strongly to your problem and purpose, along with those that pertain to your conclusions.

Conclusions and Implications

This section connects your results back to your purpose. In this section, you can also briefly reiterate the importance of the problem and extrapolate the significance of the results.

Abstracts for Specific Types of Articles

If you are writing an abstract for a more specialized work, you will need to include additional elements.

Empirical Study

- Description of the participants or subjects (with information such as number, type, age, and/or gender)
- Experimental method
- Findings
- Conclusions

Review or Theoretical Article

- Brief description of the topic
- Purpose/thesis and scope
- Sources cited (e.g., published literature or personal observation)
- Conclusions

Methodological Article

- General class of method being proposed or discussed
- Essential features of the proposed method
- Range of application

Case Study

- Subject and the subject’s relevant characteristics
- Problem presented by the case example (and its solution, if applicable)
- Questions the case study raises for further research

Sample Abstracts and Abstract Worksheet

For discipline-specific abstract examples or to practice drafting your own abstract, please see the sample



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abstracts below as well as the abstract worksheet at the end of this handout.

Sample Abstract: Nursing

BACKGROUND: Detailed information regarding the work history of heart transplant patients is limited. Therefore, the work history and factors associated with return to work at 1 year after heart transplantation were examined in 237 heart transplant patients as part of a longitudinal quality-of-life study at two university medical centers. Patient characteristics were as follows: 81% male; 89% white; mean age 54 years (range 24 to 71); mean level of education 13 years; and 84% were married.

METHODS: Data were collected using the following instruments: Work History tool; Rating Question Form; Heart Transplant Stressor Scale; Quality of Life Index; Sickness Impact Profile; Jalowiec Coping Scale; Social Support Index; Heart Transplant Symptom Checklist; and Chart Review Form. Frequency distributions, chi-square, t-tests and stepwise regression were used to examine the work history of patients.

RESULTS: Pre-transplant, only 17% of patients were working as compared with 26% (61 of 237) working by 1 year after transplant ($p = 0.003$). Pre-transplant non-working patients ($n = 197$) were hospitalized more frequently, were more physically disabled, had more symptom distress, and rated their health as poorer. After heart transplant non-working patients ($n = 176$) had more rejection, infection and medical complications and more hospital days. Patients who were working either pre- or post-transplant were more likely to hold jobs that were less physically demanding. Factors significantly associated with return to work by 1 year after heart transplant were better functional ability, higher education, fewer endocrine problems, fewer acute rejection episodes and shorter heart transplant waiting time.

CONCLUSIONS: Clinical and demographic variables influence return to work after heart transplantation. Knowledge of these variables provides the health-care team with information to assist patients in securing gainful employment.

From: White-Williams, C., Jalowiec, A., & Grady, K. (2005). Who returns to work after heart transplantation? *The Journal of Heart and Lung Transplantation* 24, 2255-2261.

As cited in: University of Alabama at Birmingham Center for Nursing Excellence. (2012, December 6). Retrieved from <http://libguides.lhl.uab.edu/content.php?pid=196639&sid=1646527>

Sample Abstract: Social Work

Between 1992 and 2003, services for homeless veterans at the Veterans Affairs Greater Los Angeles Healthcare System went from inappropriate utilization of hospital medical and psychiatric beds, to a continuum of residential treatment, transitional housing, and employment programs through arrangements with private agencies. The authors use elements of Hasenfeld and Brock's Political Economy Model (1991) to explain this transformation in service delivery that was spearheaded by a VA social work leadership team. It is argued that three driving forces crucial to program implementation were present: technological certainty, economic stability, and concentration of power. Evidence of the implementation's impact includes creation of new homeless program beds, a reduction in use of medical/psychiatric beds, and a large number of formerly homeless veterans with housing and employment at program discharge. Study limitations and implications for future studies are discussed.



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From: Nakashima, J., McGuire, J., Berman, S., & Daniels, W. (2004). Developing programs for homeless veterans: Understanding driving forces in implementation. *Social Work in Health Care, 40*(2), 1-12.

Sample Abstract: Pharmacology

BACKGROUND: The transdermal application of substances represents an elegant approach to overcome side effects related to injections or oral treatment. Due to benefits like a constant plasma level, no pain during application and a simple therapeutic regime, the optimization of formulations for transdermal drug delivery has gained interest in the last decades. Ibuprofen is a non-steroidal anti-inflammatory compound which is nowadays often used transdermally. The objective of this work was to conduct a study on the effect of different 5% ibuprofen containing formulations (Ibutop® cream, Ibutop® gel, and ibuprofen solution in phosphate buffered saline) on the in vitro-percutaneous permeation of ibuprofen through skin to emphasise the importance of the formulation on percutaneous permeation and skin reservoir.

METHODS: The permeation experiments were conducted in Franz-type diffusion cells according to OECD guideline 428 with 2 mg/cm² ibuprofen formulation on each skin sample. Ibuprofen was analysed in the receptor fluid and extracted skin samples by UV-VIS high-performance liquid-chromatography at 238 nm. The plot of the cumulative amount of ibuprofen permeated versus time was employed to calculate the apparent permeability coefficient, the maximum flux and the lagtime, all of which were statistically analysed by One-way ANOVA.

RESULTS: Although ibuprofen permeation out of the gel increases rapidly within the first four hours, the cream produced the highest ibuprofen delivery through the skin within 28 hours, followed by the solution and the gel. A significant shorter lagtime was found after gel treatment compared with the cream and the solution. After 28 hours 59% of the applied ibuprofen was found in the receptor fluid of the cream treated samples, 26% in the solution treated samples and 21% in the samples treated with the gel. Fourfold higher ibuprofen reservoirs were found in the solution and gel treated skin samples compared to the cream treated skin samples.

CONCLUSION: The present study demonstrates the importance of the formulation on transdermal drug delivery of ibuprofen and emphasises the differences of drug storage within the skin due to the formulation. Thus, it is a mistaken assumption that formulations comprising the same drug amount are equivalent regarding skin permeability.

From: Stahl, J., Wohler, M., & Kietzmann, M. (2011, December 14). The effect of formulation vehicles on the in vitro percutaneous permeation of ibuprofen. *BMC Pharmacology, 11*(12). doi: 10.1186/1471-2210-11-12

References

- American Psychological Association. (2010). *Publication manual of the American Psychological Association*. Washington, DC: Author.
- Indiana University Bloomington. (2010, January 28). Writing Abstracts. Retrieved from <http://www.indiana.edu/~wts/pamphlets/abstracts.shtml>
- Purdue OWL. (2012). Journal Abstracts. Retrieved from <http://owl.english.purdue.edu/owl/resource/752/04/>



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Abstract Worksheet

Purpose/Problem

What is the problem? _____

What is your purpose? _____

Methods

What are the three most important details about your methodology? Do these relate to your purpose?

1. _____

2. _____

3. _____

Results

What are your three most important findings?

1. _____

2. _____

3. _____

Conclusion/Implications

How do your results connect to your purpose? _____

So what? Why is this important? _____
