

Beginners Guide to the Research Proposal

☠️ Common Pitfalls ☠️

Pitfall #1: The Presentation

Example: In this innovative study, we will elucidate, categorize, and illustrate the myriad of characteristics that typify the consumers of emergency health care services. Previous researchers have done a lousy job in view of the fact that their methods were bad. We also had a notion to study this problem. The findings from our pilot study were great. After a thorough search of the literature, we firmly and honestly believe that an in-depth study which generates a large body of useful information will, in the final analysis, allow better management of emergency room resources in view of the fact that health care resources are stretched thin.

Keys to Effective Writing

- Simplicity
- Clarity
- Parsimony

Important Rules

- Avoid jargon.
- Avoid trendy words
- Avoid abbreviations
- Avoid colloquialisms
- Do not try to sound "intellectual"
- Avoid redundant phrases
- Avoid overused phrases

For example:

<i>Poor</i>	<i>Better</i>
in view of the fact that	because
utilize	use
elucidate, categorize, and illustrate	describe
an in-depth study	a study
audible to the ear	audible

See also: [Zeiger, Essentials of Biomedical Writing](#)

Pitfall #2: The Hazy Question

The purpose of this study is to determine the major concerns of women after a cesarean delivery.

Unclear: immediately after delivery, a year after delivery?

Concepts not identified: what kind of concerns?

Patients residing in different parts of Alberta will undergo colonoscopy differently than those residing in other parts.

Unclear: what is meant by will undergo and differently?

Variables not identified: different parts of Alberta, differently?

Does the administration of analgesic by nurses vs. by patients themselves affect how older patients feel during postoperative recovery?

Constructs not defined: feel

Unmeasurable: feel

★ Be as specific as possible:

Does the administration of narcotic analgesics by nurses versus patient self-administration affect pain intensity, as measured by the McGill pain scale, 24 hours following laparoscopic surgery.

Pitfall #3: The Inconsistent Protocol

The purpose of this study is to determine if there are differences in pain control with nurse versus patient administered analgesia following surgery.

Research Question: Does the administration of analgesic by nurses vs. by patients themselves affect pain intensity during postoperative recovery in older adults?

Hypothesis: Patients who self-administered narcotics will be more satisfied than patients who receive narcotics administered by nurses.

Sample size: To achieve a power of 80% to detect a 20% difference in the total morphine dose in the first 24 hours surgery, 30 subjects in each group will be required.

What is the primary objective? Do the researchers know?

Pitfall #4: Incorrect description of study design

A randomized quasi-experimental design.

Pitfall #5: The Incorrect Design (or the wrong objective)

The primary objective is to determine if coffee drinking causes pancreatic cancer.

A case-control study will be conducted.

Better: *The primary objective of this study is to determine if there is an association between coffee consumption and pancreatic cancer.*

Pitfall #6: Randomization/Random sample

We will randomize 50 patients to either treatment or control group. During the 4 weeks of the study, it is anticipated that approximately 60 patients will be eligible. Therefore, a random sample of fifty will be chosen.

How will random allocation be performed?

Why and how will a random sample be obtained?

Pitfall #7: The Unknown Instrument

The primary objective is to determine the degree of satisfaction patients have with outpatient surgery. A questionnaire will be mailed to patients that asks about their degree of satisfaction with their hospital stay.

Where did the questionnaire come from?

How was it developed?

What does it consist of?

Has it been pretested?

Is it a reliable and valid measure of patient satisfaction.

Better:

The primary objective is to determine the degree of satisfaction patients have with outpatient surgery. We will use the Patients Satisfaction Scale. This instrument was developed to determine patient satisfaction with outpatient surgery. It is a 15-item self-administered questionnaire. On repeat testing two weeks apart, it had a test-retest reliability of 0.76.

Pitfall #8: The Statistical Analysis

The data will be analyzed using means, standard deviations, t tests, chi-square tests, correlation coefficients and analysis of variance.

or in other words

The data will be beaten with a bunch of statistical tests in hopes that it will talk.

Devise an analysis plan not a statistical shopping list.

Descriptive analysis first.

Analytic tests second.

Better *The mean 24-hour total morphine dose and standard deviation for each study group will be computed. Difference in the mean morphine dose between the two groups will be tested using a t test.*

Pitfall #9: The Mystery Statistical Consultant

Statistical analysis will be conducted with the aid of a statistician.

Name the statistician

Consultant (?fee) or Co-Investigator

Attach a letter of support

Describe the statistician's role

Dr. R. Fisher from the Department of Community Health Sciences will act as a statistical consultant. He has calculated the estimated sample size and will aid in the analysis of the data.

or

Dr. R. Fisher from the Department of Community Health Sciences will be hired to conduct the statistical analysis.

or

Dr. R. Fisher from the Department of Community Health Sciences will be a co-investigator in this study. He has participated in the design of the study and has written the sample size and data analysis sections of the protocol. He will be responsible for creation of the study database, performing validity checks on the data, and for conducting the data analysis.

Pitfall #10: Missing Items

Signatures

Budget items

Sections: sample size