N 536 - Utilization of Nursing Research in Advanced Practice, Summer 2008

Tzeng, Huey-Ming

http://hdl.handle.net/2027.42/64943
Topic 8: How to critique a research paper

Unless otherwise noted, the content of this course material is licensed under a Creative Commons 3.0 License. http://creativecommons.org/licenses/by/3.0/

Copyright 2008, Huey-Ming Tzeng, Sonia A. Duffy, Lisa Kane Low.

The following information is intended to inform and educate and is not a tool for self-diagnosis or a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional. You should speak to your physician or make an appointment to be seen if you have questions or concerns about this information or your medical condition. You assume all responsibility for use and potential liability associated with any use of the material.

Material contains copyrighted content, used in accordance with U.S. law. Copyright holders of content included in this material should contact open.michigan@umich.edu with any questions, corrections, or clarifications regarding the use of content. The Regents of the University of Michigan do not license the use of third party content posted to this site unless such a license is specifically granted in connection with particular content objects. Users of content are responsible for their compliance with applicable law. Mention of specific products in this recording solely represents the opinion of the speaker and does not represent an endorsement by the University of Michigan.
Assignment

Major Content Sections of a Research Report and Related Critiquing Guidelines

Notes:
1. Use these guidelines to critique your selected research article to be included in your research proposal. You do not need to address all the questions indicated in this guideline, and only include the questions that apply.
2. Prepare your report as a paper with appropriate headings and use APA format 5th edition. Also see the web link: http://www.apastyle.org/.
3. No more than five pages in length, including the cover page.
4. When you submit your assignment file, please also include the full article as a separate file.

Summary of the article (limited to one page; DO NOT copy the abstract of this article)

<table>
<thead>
<tr>
<th>Section</th>
<th>Questions to guide evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem statement and purpose</td>
<td>1. What is the problem and/or purpose of the research study?</td>
</tr>
<tr>
<td></td>
<td>2. Does the problem or purpose statement express a relationship between two or more variables? If so, what is/are the relationship(s)? Are they testable?</td>
</tr>
<tr>
<td></td>
<td>3. Does the problem statement and/or purpose specify the nature of the population being studied? What is it?</td>
</tr>
<tr>
<td></td>
<td>4. What significance of the problem, if any, has the investigator identified?</td>
</tr>
<tr>
<td>Review of literature and theoretical framework</td>
<td>1. What concepts are included in the review? Of particular importance, note those concepts that are the independent and dependent variables and how they are conceptually defined.</td>
</tr>
<tr>
<td></td>
<td>2. Does the literature review make the relationships among the variables explicit or place the variables within a theoretical/conceptual framework? What are the relationships?</td>
</tr>
<tr>
<td></td>
<td>3. What gaps or conflicts in knowledge of the problem are identified?</td>
</tr>
<tr>
<td></td>
<td>4. Are the references cited by the author mostly primary or secondary sources? Give an example of each.</td>
</tr>
<tr>
<td></td>
<td>5. What are the operational definitions of the independent and dependent variables? Do they reflect the conceptual definitions?</td>
</tr>
</tbody>
</table>
| **Hypotheses or research questions** | 1. What hypotheses or research questions are stated in the study?  
2. If research questions are stated, are they used in addition to hypotheses or to guide an exploratory study?  
3. What are the independent and dependent variables in the statement of each hypothesis or research question?  
4. If hypotheses are stated, is the form of the statement statistical (also called null) or research?  
5. What is the direction of the relationship in each hypothesis, if indicated?  
6. Are the hypotheses testable? |
|---|---|
| **Sample** | 1. How was the sample selected?  
2. What type of sampling method is used? Is it appropriate to the design?  
3. Does the sample reflect the population as identified in the problem or purpose statement?  
4. Is the sample size appropriate?  
5. To what population may the findings be generalized? What are the limitations in generalizability? |
| **Research design** | 1. What type of design is used?  
2. Does the design seem to flow from the proposed research problem, theoretical framework, literature review, and hypothesis?  
3. What type(s) of data-collection method(s) is/are used in the study?  
4. Are the data-collection procedures similar for all subjects?  
5. How have the rights of subjects been protected?  
6. What indications are given that informed consent of the subjects has been ensured? |
| **Instruments** | 1. Physiological measurement: Is a rationale given for why a particular instrument or method was selected? If so, what is it? What provision is made for maintaining the accuracy of the instrument and its use, if any?  
2. Observational methods: Who did the observing? How were the observers trained to minimize bias? Was there an
observational guide? Were the observers required to make inferences about what they saw? Is there any reason to believe that the presence of the observers affect the behavior of the subjects?

3. Interviews: Who were the interviewers? How were they trained to minimize the bias? Is there evidence of any interview bias? If so, what was it?

4. Questionnaires: What is the type and/or format of the questionnaire(s) (e.g. Likert, open-ended)? Is (Are) it (they) consistent with the conceptual definition(s)?

5. Available data and records: Are the records that were used appropriate to the problem being studied? Are the data being used to describe the sample or to test the hypothesis?

6. What type of reliability is reported for each instrument?

7. What level of reliability is reported? Is it acceptable?

8. What type of validity is reported for each instrument?

9. Does the validity of each instrument seem adequate? Why?

Analysis of data

1. What level of measurement is used to measure each of the major variables?

2. What descriptive or inferential statistics are reported?

3. Were these descriptive or inferential statistics appropriate to the level of measurement for each variable?

4. Are the inferential statistics used appropriate to the intent of the hypotheses?

5. Does the author report the level of significance set for the study? If so, what is it?

6. If tables or figures are used, do they meet the following standards? They supplement and economize the text. They have precise titles and headings. They do not repeat the text.

Conclusions, implications, recommendations, and utilization for

1. If hypothesis testing was done, was/were the hypotheses supported or not supported?

2. Are the results interpreted in the context of the problem/purpose, hypothesis, and
nursing practice theoretical framework/literature reviewed?
3. What relevance for nursing practice does the investigator identify, if any?
4. What generalizations are made?
5. Are the generalizations within the scope of the findings or beyond the findings?
6. What recommendations for future research are stated or implied?
7. Are there other studies with similar findings?
8. What risks/benefits are involved for patients if the research findings would be used in practice?
9. Is direct application of the research findings feasible in terms of time, effort, money, and legal/ethical risks?
10. How and under what circumstances are the findings applicable to nursing practice?
11. Should these results be applied to nursing practice?
12. Would it be possible to replicate this study in another clinical practice setting?