RESEARCH CRITIQUE: How To Evaluate The Quality Of A Research Article

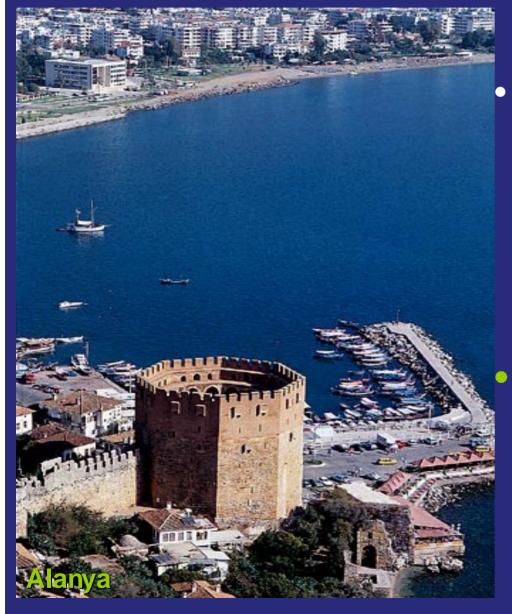
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K注 Kulesi (Girl Tower)



Purposes of a Research Critique

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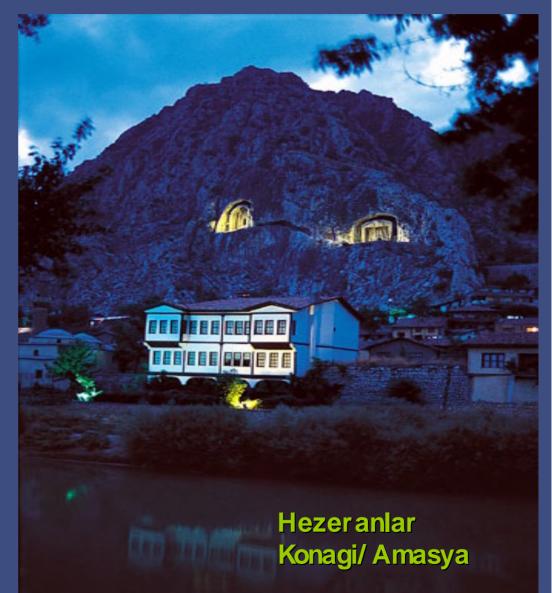
A research critique is not just a summary of a study but rather a careful appraisal of its merits and flaws.

 A good critique objectively identifies areas of adequacy and inadequacy, as well as virtues and faults.

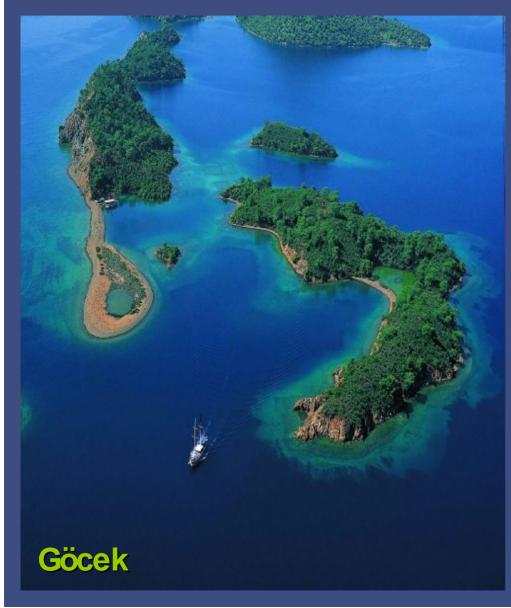
Types of research critiques conducted in nursing-Part 1

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- Student critiques
- Critiques by the practicing nurse
- Critiques by nursing educators
- Critiques by nurse researchers



Types of research critiques conducted in
nursing- Part 2Marmara University College of Nursing



- Critiques after verbal presentations of studies
- Critiques after published research reports
- A critique done for abstract selection
- The critique of an article for publication
- The critique of research proposals



DIMENSIONS OF A RESEARCH CRITIQUE

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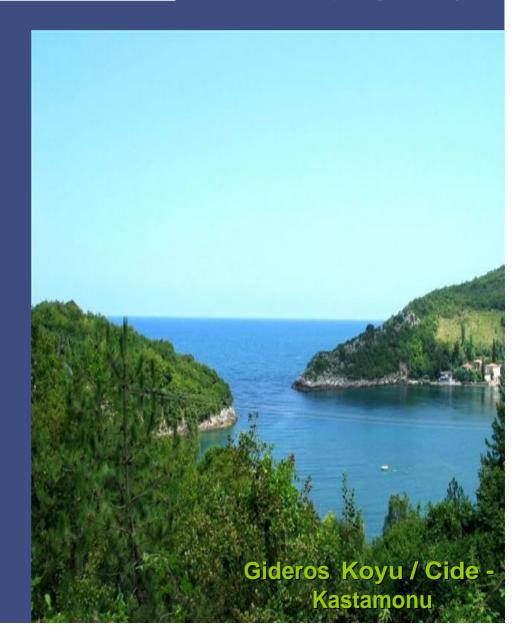




1.Substantive and Theoretical Dimension

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- The research problem should have an obvious relevance to some aspect of nursing.
- It is not enough that a problem be interesting if it offers but it also offers knowledge on nursing or improving nursing practices.





2. Methodologic Dimension

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 The heart of a research critique lies in the appraisal of the researchers' methodological decisions.

The quality of evidence that a st udy yields is inextricably linked to researchers' choice of met hods and strategies for st udy design and for collecting and analyzing dat a.



3.Ethical Dimension

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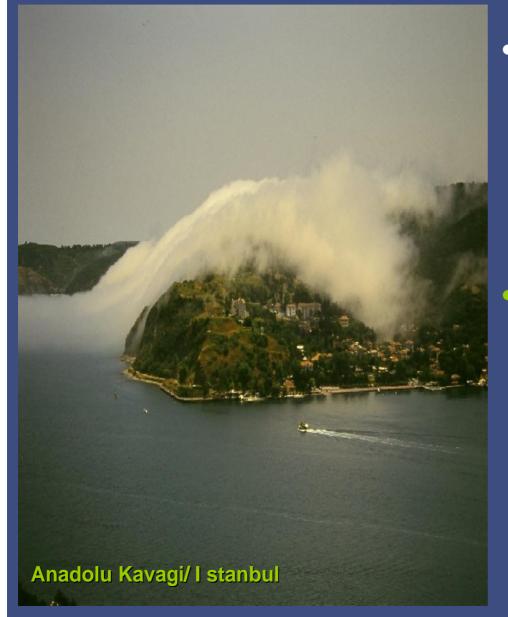
A piece of research is required the risk /benefit ratio. More specifically the extent to which the benefits of the study is maximized and the risks are minimized such that subjects are protected from harm during the study.





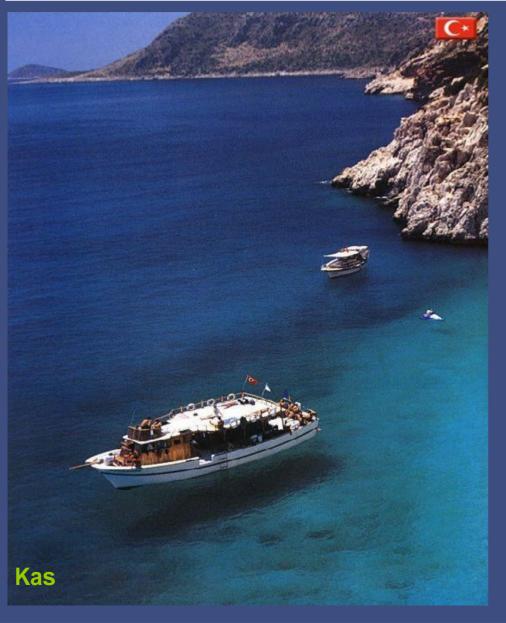
4.Interpretive Dimension

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- Research reports virtually always conclude with a discussion, conclusion statement, or implications section.
- In this final section, researchers of fer an interpretation of the findings, and also consider whether the findings might imply something about nursing.

THE CRITIQUING PROCESS FOR A RESEARCH ARTICLE Marmara University College of Nursing



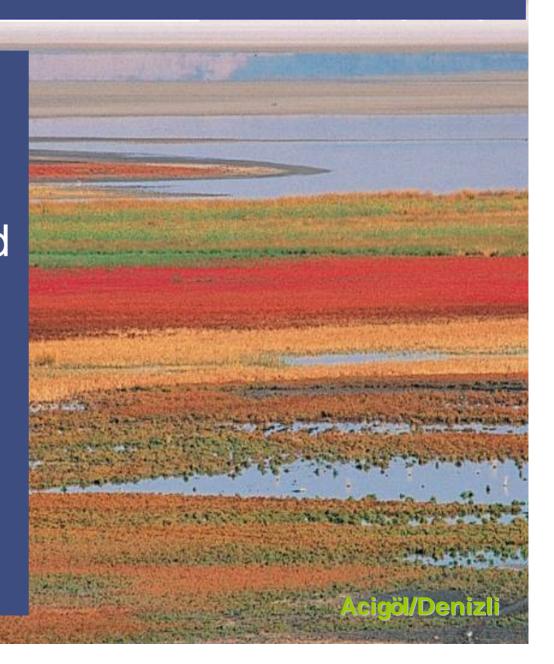
 Nature of the study and its problem statement

- Lit er at ur e r eview and concept ual f r amewor k
- Research design and procedures
- Dat a collect ion and analysis
- Discussion of findings



GUI DELINES FOR CRITIQUING QUANTITATIVE RESEARCH REPORTS

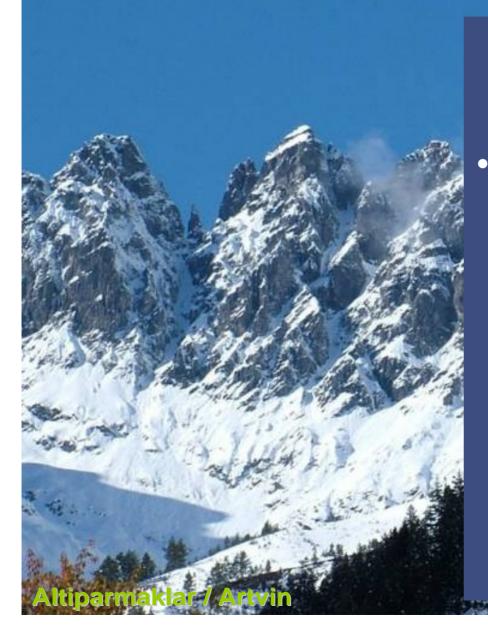
TITLE **Basic questions** for a critique: Was the title a good one, and did it suggest the research problem and the study population?







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Basic questions for a critique: Does the abstract clearly and concisely summarize the main features of the report?

Statement of the problem and purpose Basic questions for a critique:

•What is the problem and/or purpose of the research study?

•Does the problem and/or purpose statement make clear the concept and the population under study?

•Does the problem have significance for nursing?

•Is there a good match between the research problem, the paradigm, and met hods used? Is a quant it at ive approach appropriate?



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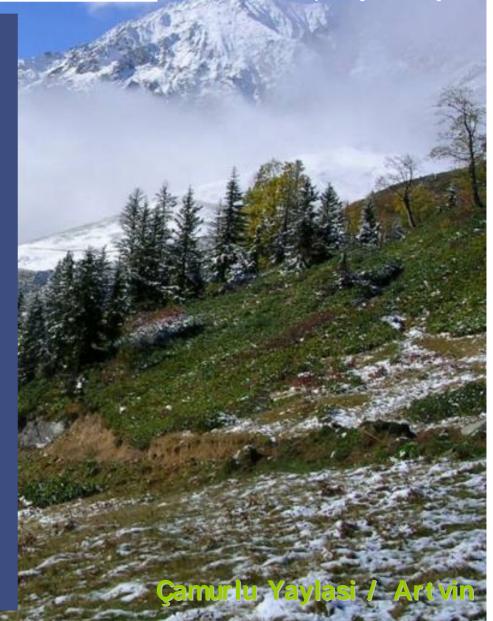
Literature review Basic questions for a critique: • Is the literature review thorough, up-to-date, and based mainly on primary sources? •Does the review summarize knowledge on the dependent and independent variables and the relationship bet ween them? •Does the literature review lay a solid basis for the new study?

Balikli Göl / Agri



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Concept ual/t heor et ical f r amewor k Basic questions for a critique: •Are key concepts adequately defined concept ually? Is there a conceptual/ theoretical framework and is it appropriate? If not, is the absence of one just if ied?







Hypot hesis(es) or research quest ion(s) Basic questions for a critique:

• Are research questions and/or hypotheses explicitly stated? If not, is their absence justified?

•Are questions and hypotheses appropriately worded?

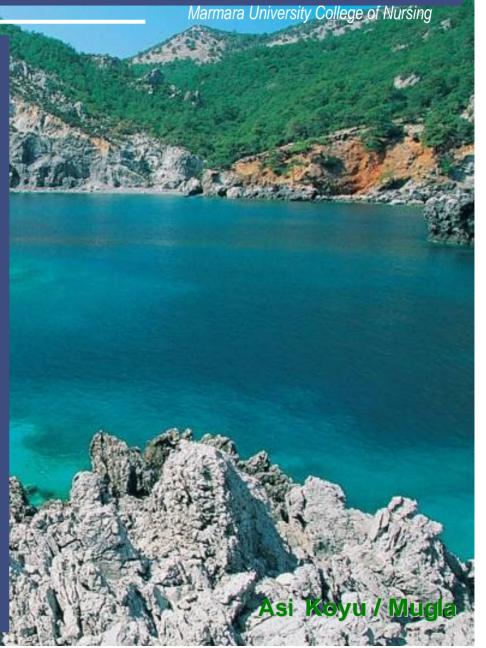
- •Are the questions/ hypotheses consistent with the literature review and the conceptual framework?
- What is the direction of the relationship in each hypotheses, if indicated?

•Are the hypotheses testable?



Research design Basic questions for a critique: •Was the most rigorous possible design used, given the st udy purpose? •Were appropriate comparisons made to enhance interpretability of the findings? •Was the number of data collection points appropriate?

•Did the design minimize threats to the internal and external validity of the study?





Populat ion and sample Basic questions for a critique:

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• How was the sample selected? Was the sample described in sufficient detail?

•Was the best possible sampling design used to enhance the sample's representativeness?

•Was the sample size adequate? Was a power analysis used to estimate sample size needs?

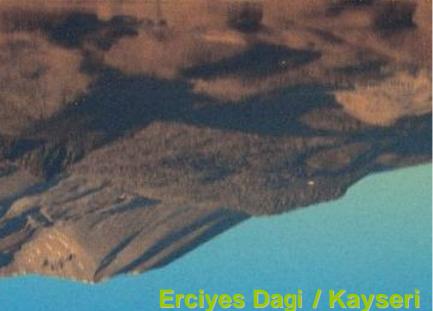
•Which population made the findings general and what were the limitations?



Dat a collect ion and measurement Basic questions for a critique:

Are the operational and conceptual definitions congruent?
Were key variables operational by using the best possible method (e.g., interviews, observations, etc.)
Were the specific instruments adequately described and were they proper choices?
Did the report provide evidence that the data collection methods yielded data that was highly reliable and valid?







Procedures

Basic questions for a critique: • If there was an involvement, was it adequately described and was it properly implemented?

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•Was the data collected in a manner that minimized bias? Was the data collection staff appropriately trained?

•Were appropriate procedures used to safeguard the rights of study participants?



RESULTS

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Dat a analysis Basic questions for a critique:

• Was each specific analyses undertaken to address each research question or test each hypothesis?

•Were appropriate statistical methods used, given the level of measurement of the variables, number of groups being compared, and etc.?

•Was the most powerful analytic method used? (e.g., did the analysis help to control extraneous variables?)





RESULTS



Findings
Basic questions for a critique:
Were the findings

adequately summarized, with
good use of tables and
figures?

Do the findings provide
strong evidence regarding

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the research questions? Were Type I and Type II errors minimized?

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Interpretation of the findings

Basic questions for a critique:

•Are all major findings interpreted and discussed within the context of prior research and/ or the study's conceptual framework?

•Are the interpretations consistent with the result and with the study's limitations?

•Does the report address the issue of the generalization of the findings?



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I mplications / recommendations Basic questions for a critique:

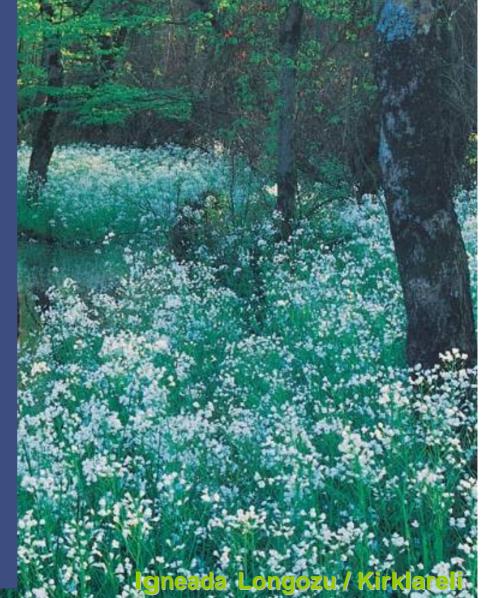
• Do the researchers discuss the implications of the study for clinical practice or further research-and are those implications reasonable and complete?

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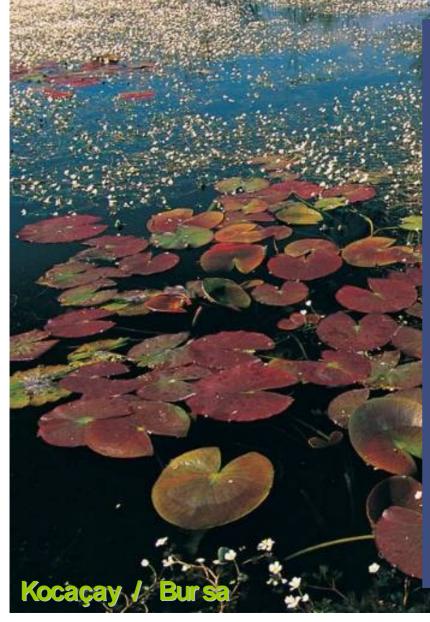
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Present at ion Basic questions for a critique:

•Was the report wellwritten, well-organized, and sufficiently detailed for critical analysis? •Were you able to under st and the st udy? Was the report written in a manner that makes the findings accessible to practicing nurses?



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Summary assessment Basic questions for a critique: Despite any identified limit at ions, do the study findings appear to be valid; do you have confidence in the truth value of the results? •Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline?

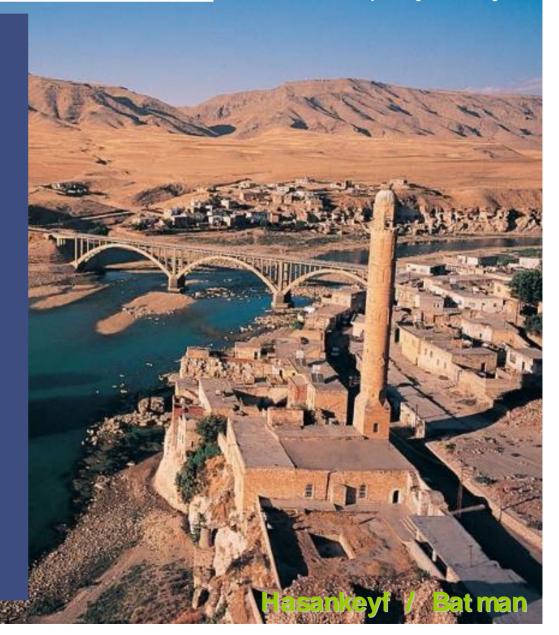
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GUI DELI NES FOR CRI TI QUI NG QUALI TATI VE RESEARCH REPORTS

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TITLE **Basic** questions for a critique: Was the title a good one, suggesting the key phenomenon and the group or community under study?





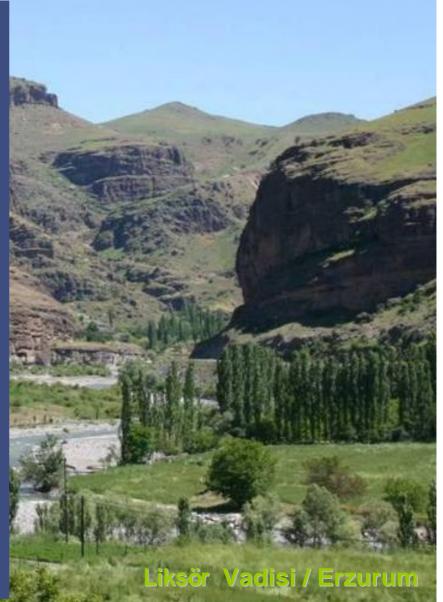
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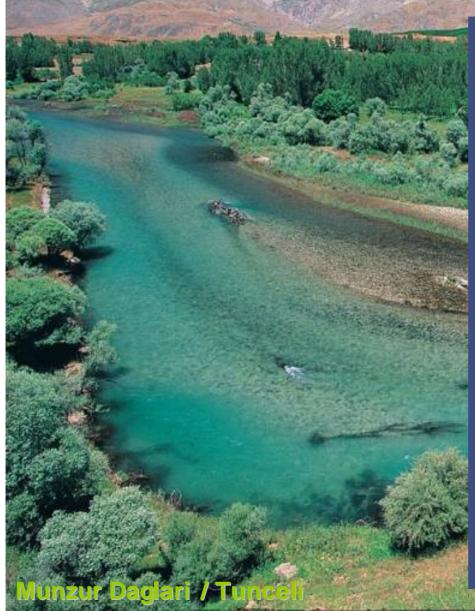
Basic questions for a critique: •Does the abstract clearly and concisely summarize the main f eatures of report?



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Statement of the problem and purpose Basic questions for a critique: • Is the phenomenon of interest clearly identified? •Is the problem stated unambiguously and is it easy to ident if y? •Does the problem have any significance in nursing? •Is there a good match bet ween the research problem and the paradigm and methods used? Is a qualitative approach appropriate?





Literature review Basic questions for a critique:

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- Does the report summarize the existing body of knowledge related to the problem of phenomenon of interest?
- Is the literature review adequate?
- Does the literature review lay a solid basis for the new study?

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Concept ual under pinnings Basic questions for a critique:

- Are key concepts adequately defined concept ually?
- Is the philosophical basis underlying; tradition, conceptual framework, or ideological orientation made explicit and is it appropriate for the problem?



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Hypot hesizes or research quest ions Basic questions for a critique: •Are research questions explicitly stated? If not, is their absence justified? •Are the questions consistent with the study's philosophical basis underlying; tradition, concept ual framework, or ideological orient at ion?

Patara Kumullari/Antalya

Research design and research tradition

Basic questions for a critique:

•Is the identified research tradition, if any, congruent with the methods used to collect and analyze data?

•Was an adequate amount of time spent in the field or with study participants?

•Did the design unfold in the field, allowing researchers to capitalize on early understandings?

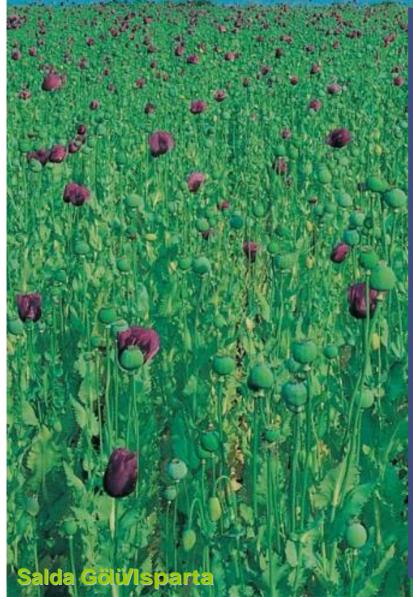
•Was there evidence of flexibility in the design?

•Were there an adequate number of contacts with study participants?





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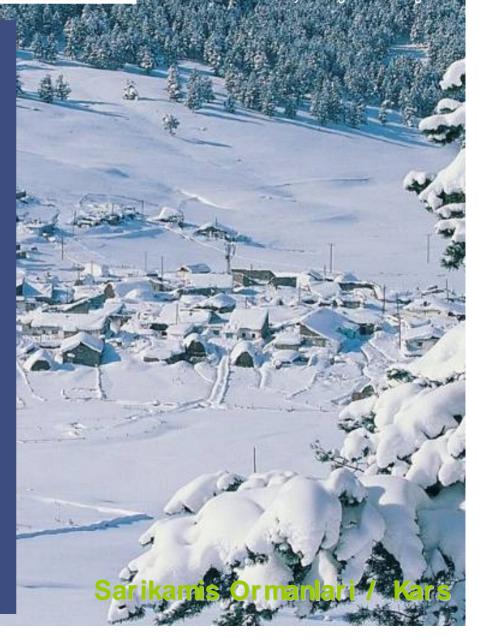


Sample and set ting Basic questions for a critique:

- Was the group or population of interest adequately described?
- Were the setting and sample described in sufficient detail?
 - Was the approach used to gain access to the site or to recruit participants appropriate?
 - Did the best possible method of sampling enhance inf or mation richness and address the needs of the study?
 - Was the sample size adequate? Was sat ur at ion achieved?

Dat a collect ion Basic questions for a critique:

- Were the methods of gathering data appropriate? Was data gathered through two or more methods to achieve triangulation?
- Did the researcher ask the right questions or make the right observations, and were they recorded in appropriate f ashion?
- Was a sufficient amount of data gathered? Was the data of sufficient depth and richness?





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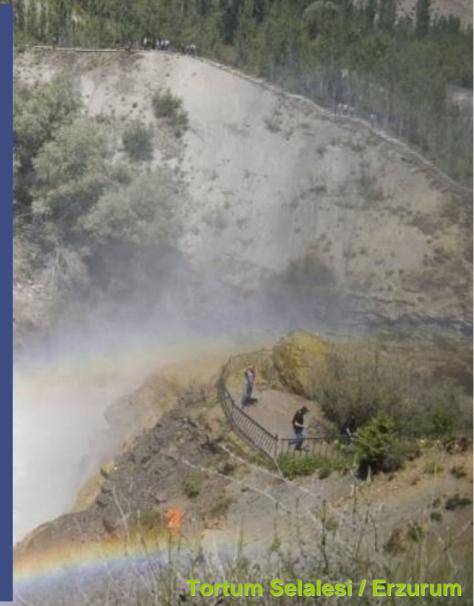


Procedures Basic questions for a critique:

- Were dat a collection and recording procedures adequately described and do they appear to be appropriate?
 - Was dat a collect ed in a manner that minimized bias or behavioral distortions? Was the dat a collection staff appropriately trained?
- Were appropriate procedures used to saf eguard the rights of study participants?

Enhancement of rigor Basic questions for a critique:

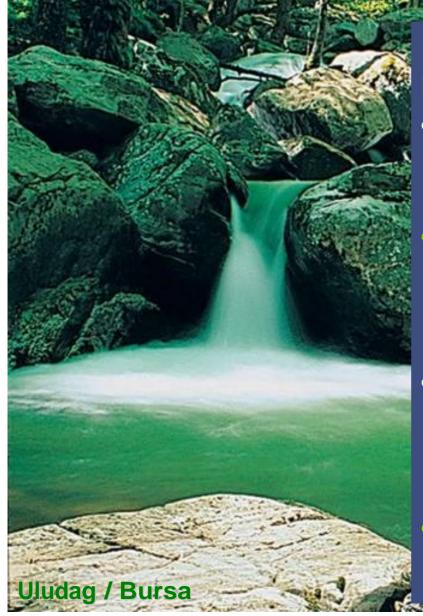
- Were methods used to enhance the trust worthiness of data and analysis, also was the description of those methods adequate?
- Were the methods used to enhance credibility appropriate and sufficient?
- Did the researcher document research procedures and decision processes sufficiently so that findings are auditable and confirmable?



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Dat a analysis Basic questions for a critique:

- Were the dat a management (e.g., coding) and dat a analysis met hods sufficiently described?
- Was the data analysis strategy compatible with the research tradition and with the nature and type of the data gathered?
- Did the analysis yield an appropriate "product" (e.g., a theory, taxonomy, thematic pattern, etc.)?
 - Did the analytical procedures suggest the possibility of bias?

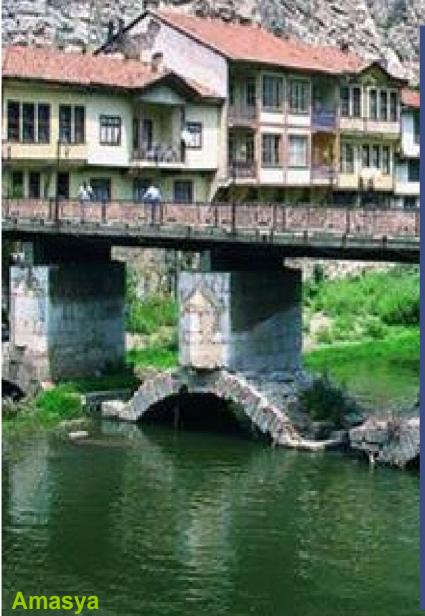


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Findings Basic questions for a critique:

- Were the findings effectively summarized with good use of excerpts?
- Do the themes adequately capture the meaning of the data? Does it appear that the researcher, with satisf action, conceptualized the themes or patterns in data?
- Did the analysis yield an insight f ul, provocative, and meaningf ul pict ure of the phenomenon under investigation?

RESULTS



Theor et ical int egration Basic questions for a critique:

- Are the themes or patterns logically connected to each other to form a convincing and integrated whole?
 - Were figures, maps, or models used effectively to summarize conceptualizations?
- If a conceptual framework or ideological orientation guided the study, are the themes or patterns linked to it in a congruent manner?

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DISCUSSION

I nt er pr et at ion of t he f indings
Basic questions for a critique:
Are the findings interpreted within an appropriate social or cultural context?
Are major findings interpreted and discussed

within the context of prior studies?

•Are the interpretations consistent with the study's limitations?

•Does the report address the issue of the transferability of findings?

Değirmen Boğazı - Balıkesir



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I mplications/ r ecommendations Basic questions for a critique: •Do the researchers discuss the implications of the study for clinical practice or further inquiry, and are those implications reasonable?

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Saitabat Selalesi/Bursa

Present at ion Basic questions for a critique:

- Was the report wellwritten, well-organized, and sufficiently detailed for critical analysis?
- Was the description of the methods, findings, and interpretations sufficiently rich and vivid?



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Summary assessment

Basic questions for a critique:

- Do the study findings appear to be trustworthy. Do you have confidence in the truth value of the results?
- Does the study contribute any meaningful evidence that can be used in nursing practice or that is useful to the nursing discipline?



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REFERENCES

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