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| GUIDE TO AN OVERALL CRITIQUE OF **A QUANTITATIVE**  **RESEARCH REPORT** | | |
| ASPECT OF THE  REPORT | CRITIQUING QUESTIONS | DETAILED CRITIQUING  GUIDELINES |
| **Title** | \* Is the title a good one, succinctly suggesting key variables and the study population? |  |
| **Abstract** | \* Does the abstract clearly and concisely summarize the main features of the report (problem, methods, results, conclusions)? |  |
| **Introduction**  Statement of the  problem | \* Is the problem stated unambiguously, and is it easy to identify?  \* Does the problem statement build a cogent and persuasive argument for the new study?  \* Does the problem have significance for nursing?  \* Is there a good match between the research problem and the paradigm and methods used? Is a quantitative approach appropriate? | Box 6.3, page 163 |
| Hypotheses or  research questions | \* Are research questions and/or hypotheses explicitly stated? If not, is their absence justified?  \* Are questions and hypotheses appropriately worded, with clear specification of key variables and the study population?  \* Are the questions/hypotheses consistent with the literature review and the conceptual framework? | Box 6.3, page 163 |
| Literature review | \* Is the literature review up-to-date and based mainly on primary sources?  \* Does the review provide a state-of-the-art synthesis of evidence on the research problem?  \* Does the literature review provide a solid basis for the new study? | Box 7.1, page 188 |
| Conceptual/  theoretical  framework | \* Are key concepts adequately defined conceptually?  \* Is there a conceptual/theoretical framework, rationale, and/or map, and (if so) is it appropriate? If not, is the absence of one justified? | Box 8.1, page 210 |
| **Method**  Protection of  participants’ rights | \* Were appropriate procedures used to safeguard the rights of study participants? Was the study subject to external review by an IRB/ethics review board?  \* Was the study designed to minimize risks and maximize benefits to participants? | Box 5.2, page 135 |
| Research design | \* Was the most rigorous possible design used, given the purpose of the research?  \* Were appropriate comparisons made to enhance interpretability of the findings?  \* Was the number of data collection points appropriate?  \* Did the design minimize biases and threats to the internal construct, and external validity of the study (e.g., was blinding used, was attrition minimized)? | Box 9.1, page 250 |
| Population and  sample | \* Was the population identified and described? Was the sample described in sufficient detail?  \* Was the best possible sampling design used to enhance the sample’s representativeness? Were sample biases minimized?  \* Was the sample size adequate? Was a power analysis used to estimate sample size needs? | Box 12.1, page 325 |
| Data collection  and measurement | \* Are the operational and conceptual definitions congruent?  \* Were key variables operationalized using the best possible method (e.g., interviews, observations, and so on) and with adequate justification?  \* Are the specific instruments adequately described and were they good choices, given the study purpose and study population?  \* Does the report provide evidence that the data collection methods yielded data that were high on reliability and validity? | Box 13.3, page 361  Box 14.1, page 383 |
| Procedures | \* If there was an intervention, is it adequately described, and was it properly implemented? Did most participants allocated to the intervention group actually receive the intervention? Was there evidence of intervention fidelity?  \* Were data collected in a manner that minimized bias? Were the staff who collected data appropriately trained? | Box 9.1, page 250 |
| **Results**  Data analysis | \* Were 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 so on?  \* Was the most powerful analytic method used? (e.g., did the analysis help to control for confounding variables)?  \* Were Type I and Type II errors avoided or minimized? | Box 15.1, page 431  **GUIDE TO AN OVERALL CRITIQUE OF A QUANTITATIVE**  **REPORT (continued)** |
| **Findings** | \* Was information about statistical significance presented? Was information about effect size and precision of estimates (confidence intervals) presented?  \* Are the findings adequately summarized, with good use of tables and figures?  \* Are findings reported in a manner that facilitates a meta-analysis, and with sufficient information needed for EBP? | Box 15.1, page 431 |
| **Discussion**  Interpretation of  the findings | \* Are all major findings interpreted and discussed within the context of prior research and/or the study’s conceptual framework?  \* Were causal inferences, if any, justified?  \* Are the interpretations consistent with the results and with the study’s limitations?  \* Does the report address the issue of the generalizability of the findings? | Box 16.1, page 457 |
| Implications/  recommendations | \* Do the researchers discuss the implications of the study for clinical practice or further research—and are those implications reasonable and complete? | Box 16.1, page 457 |
| **Global Issues**  Presentation | \* Is the report well written, well organized, and sufficiently detailed for critical analysis?  \* In intervention studies, was a CONSORT flow chart provided to show the flow of participants in the study?  \* Was the report written in a manner that makes the findings accessible to practicing nurses? |  |
| Researcher  credibility | \* Do the researchers’ clinical, substantive, or methodologic qualifications and experience enhance confidence in the findings and their interpretation? |  |
| Summary  assessment | \* Despite any identified limitations, 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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| GUIDE TO AN OVERALL CRITIQUE OF **A QUALITATIVE**  **RESEARCH REPORT** | | |
| ASPECT OF THE  REPORT | CRITIQUING QUESTIONS | DETAILED CRITIQUING  GUIDELINES |
| **Title** | \* Was the title a good one, suggesting the key phenomenon and the group or community under study? |  |
| **Abstract** | \* Does the abstract clearly and concisely summarize the main features of the report? |  |
| **Introduction**  Statement of the  problem | \* Is the problem stated unambiguously and is it easy to identify?  \* Does the problem statement build a cogent and persuasive argument for the new study?  \* Does the problem have significance for nursing?  \* Is there a good match between the research problem on the one hand and the paradigm, tradition, and methods on the other? | Box 6.3, page 163 |
| Research questions | \* Are research questions explicitly stated? If not, is their absence justified?  \* Are the questions consistent with the study’s philosophical basis, underlying tradition, conceptual framework, or ideological orientation? | Box 6.3, page 163 |
| Literature review | \* Does the report adequately summarize the existing body of knowledge related to the problem or phenomenon of interest?  \* Does the literature review provide a solid basis for the new study? | Box 7.1, page 188 |
| Conceptual/  theoretical  framework | \* Are key concepts adequately defined conceptually?  \* Is the philosophical basis, underlying tradition, conceptual framework, or ideological orientation made explicit? | Box 8.1, page 210 |
| **Method**  Protection of  participants’ rights | \* Were appropriate procedures used to safeguard the rights of study participants? Was the study subject to external review by an IRB/ethics review board?  \* Was the study designed to minimize risks and maximize benefits to participants? | Box 5.2, page 135 |
| Research design and research tradition | \* 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, giving researchers opportunities to capitalize on early understandings?  \* Was there an adequate number of contacts with study participants? | Box 10.1, page 277 |
| Sample and setting | \* 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?  \* Was the best possible method of sampling used to enhance information richness and address the needs of the study?  \* Was the sample size adequate? Was saturation achieved? | Box 12.2, page 326 |
| Data collection | \* Were the methods of gathering data appropriate?  Were 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 an appropriate fashion?  \* Was a sufficient amount of data gathered? Was the data of sufficient depth and richness? | Box 13.3, page 361 |
| Procedures | \* Were data collection and recording procedures adequately described and do they appear appropriate?  \* Were data collected in a manner that minimized bias or behavioral distortions? Were the staff who collected data appropriately trained? | Box 13.3, page 361 |
| Enhancement of  trustworthiness | \* Did the researchers use strategies to enhance the trustworthiness/integrity of the study, and was the description of those strategies adequate?  \* Were the methods used to enhance trustworthiness appropriate and sufficient?  \* Did the researcher document research procedures and decision processes sufficiently that findings are auditable and confirmable?  \* Is there evidence of researcher reflexivity? | Box 18.1, page 508 |
| **Results**  Data analysis | \* Were the data management and data analysis methods sufficiently described?  \* Was the data analysis strategy compatible with the research tradition and with the nature and type of data gathered?  \* Did the analysis yield an appropriate “product”  (e.g., a theory, taxonomy, thematic pattern, etc.)?  \* Did the analytic procedures suggest the possibility of biases? | Box 17.2, page 483**GUIDE TO AN OVERALL CRITIQUE OF A QUANTITATIVE**  **REPORT (continued)** |
| **Findings** | \* Do the themes adequately capture the meaning of the data? Does it appear that the researcher satisfactorily conceptualized the themes or patterns in the data?  \* Did the analysis yield an insightful, provocative, authentic, and meaningful picture of the phenomenon under investigation? | Box 17.2, page 483 |
| Theoretical  integration | \* 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 cogent manner? | Box 8.1, page 210  Box 17.2, page 483 |
| **Discussion**  Interpretation of  the findings | \* 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 support transferability of the findings? | Box 18.1, page 508 |
| Implications/  recommendations | \* Do the researchers discuss the implications of the study for clinical practice or further inquiry—and are those implications reasonable and complete? | Box 18.1, page 508 |
| **Global Issues**  Presentation | \* Was the report well written, well organized, and sufficiently detailed for critical analysis?  \* Was the description of the methods, findings, and interpretations sufficiently rich and vivid? |  |
| Researcher  credibility | \* Do the researchers’ clinical, substantive, or methodologic qualifications and experience enhance confidence in the findings and their interpretation? |  |
| Summary  assessment | \* 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? |  |