Nursing Research 1 Practice Test (Sample)

Study Guide

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Questions

1. Which validity refers to performing correlational analysis on multiple tools assessing the same concept?

A. Predictive validity

B. Concurrent validity

C. Construct validity

D. Divergent validity

2. What is your first choice when looking for theoretical, clinical or research articles?

A. Print resources from personal collections

B. Refereed or peer-reviewed journals

C. Articles available on social media

D. Personal blogs on health topics

3. What refers to the process of synthesizing multiple qualitative articles on a focused topic?

A. Qualitative research

B. Integrative review

C. Meta-synthesis

D. Meta-analysis

4. How is research design best defined?

A. A framework the researcher creates

B. A systematic review of literature

C. A hypothesis-driven study

D. A collection of interviews

5. What level of study does data collected from an experimental study where subjects were randomly selected represent?

A. Level I

B. Level II

C. Level III

D. Level IV

6. In qualitative research, what context might influence findings?

A. Physical setting of the study

B. Number of subjects

C. Selection of research methods

D. Funding sources

7. Control in the context of research is best defined as:

A. Inducing random variations

B. Manipulating the dependent variable

C. Maintaining consistency across study conditions

D. Ensuring large sample sizes

8. How is the Kuder-Richardson (KR-20) coefficient expressed?

A. As a percentage out of 100

B. As an integer between 1 and 10

C. As a ratio of error variance to true variance

D. As a coefficient between 0 and 1

9. What effect might a celebrity's cancer diagnosis have on a research study regarding mammograms?

A. Maturation

B. History

C. Reactivity

D. Experimenter bias

10. What is the impact of maturation on internal validity?

A. It refers to systematic data collection procedures

B. It includes developmental changes within participants

C. It ensures random assignment of subjects

D. It assesses the credibility of the study

Answers

1. C
2. B
3. C
4. A
5. B
6. A
7. C
8. D
9. B
10. B

Explanations

1. Which validity refers to performing correlational analysis on multiple tools assessing the same concept?

A. Predictive validity

B. Concurrent validity

C. Construct validity

D. Divergent validity

Construct validity is the appropriate term for the validity that involves performing correlational analysis on multiple tools that assess the same concept. It focuses on whether a particular measurement tool accurately reflects the theoretical construct it is intended to measure. For instance, if different surveys or instruments are designed to assess the same underlying concept, such as anxiety, construct validity can be evaluated by examining how well these tools correlate with each other. This type of validity helps to ensure that the instruments used capture the intended construct thoroughly and provides a foundation for using these tools in further research and clinical applications. Establishing strong construct validity is essential for confirming that the measurements used are relevant and accurately represent the theoretical constructs they are designed to measure. In contrast, predictive validity relates to how well a tool can forecast future outcomes, concurrent validity assesses how well a tool correlates with other measures taken at the same time, and divergent validity examines how distinct a tool is from other measurements that are not supposed to be related. While these concepts are important in evaluating the effectiveness of various assessment tools, they do not specifically address the correlation of multiple instruments measuring the same construct as construct validity does.

2. What is your first choice when looking for theoretical, clinical or research articles?

A. Print resources from personal collections

B. Refereed or peer-reviewed journals

C. Articles available on social media

D. Personal blogs on health topics

Choosing refereed or peer-reviewed journals as the primary source for theoretical, clinical, or research articles is essential because these journals uphold rigorous standards of quality and reliability in research. Peer review involves evaluation by experts in the field before publication, ensuring that the studies presented have undergone thorough scrutiny for validity, methodology, and significance. This process helps ensure that the findings are credible and applicable to clinical practice, making them an indispensable resource for nursing research. In contrast, print resources from personal collections may not always be up-to-date or validated, as they can vary widely in quality and relevance. Articles available on social media often lack the rigor of academic scrutiny and may be biased or based on incomplete information. Personal blogs on health topics, while potentially insightful, usually do not adhere to scholarly standards and can include unverified or anecdotal claims, which diminishes their reliability as a source of evidence for research or practice. Thus, peer-reviewed journals are the most trustworthy and authoritative sources for nurses seeking evidence-based information.

3. What refers to the process of synthesizing multiple qualitative articles on a focused topic?

A. Qualitative research

B. Integrative review

C. Meta-synthesis

D. Meta-analysis

Meta-synthesis refers to the process of integrating findings from multiple qualitative studies to create a comprehensive understanding of a particular topic. This approach allows researchers to identify patterns, themes, and insights that may not emerge when examining each study in isolation. Unlike quantitative methods that often involve statistical analysis, meta-synthesis focuses on the subjective experiences and meanings conveyed in qualitative research, thus enriching the body of knowledge surrounding specific phenomena. By synthesizing qualitative data, researchers can provide deeper insights, uncover new dimensions of understanding, and inform practice and policy more effectively.

4. How is research design best defined?

A. A framework the researcher creates

B. A systematic review of literature

C. A hypothesis-driven study

D. A collection of interviews

Research design is best understood as a framework that the researcher creates to guide the entire research process. This framework encompasses various aspects, including the selection of research methods, the identification of variables to be studied, and the strategies for data collection and analysis. By establishing a structure, the research design helps to ensure that the study is methodologically sound and that it effectively addresses the research questions or hypotheses. While systematic reviews of literature, hypothesis-driven studies, and collections of interviews can be components or methodologies within a research study, they do not encompass the broader perspective of what a research design entails. A systematic review is a specific type of synthesis of existing literature rather than a design framework itself. Similarly, a hypothesis-driven study and collections of interviews refer to particular approaches within a potential research design but do not represent the overarching structure or plan that governs the study. Therefore, defining research design as a framework captures its essential function in organizing and directing research efforts.

5. What level of study does data collected from an experimental study where subjects were randomly selected represent?

A. Level I

B. Level II

C. Level III

D. Level IV

Data collected from an experimental study where subjects were randomly selected represents Level II evidence in nursing research. This level involves studies that provide evidence from at least one experimental study. The key feature of experimental studies is the random assignment of subjects to either the treatment or control group, which helps minimize bias and allows for a more rigorous examination of the causal relationships between variables. Level I evidence typically refers to systematic reviews or meta-analyses of randomized controlled trials, which synthesize findings from multiple studies to establish a higher level of certainty regarding the effectiveness of an intervention. Level III evidence usually involves non-experimental studies, such as cohort studies or case-control studies, where there is no random assignment, and Level IV evidence is based on expert opinion or case reports. Therefore, the structure and methodology of a randomized controlled trial align with Level II evidence, making it a crucial component in building effective nursing practices based on scientific research.

6. In qualitative research, what context might influence findings?

A. Physical setting of the study

B. Number of subjects

C. Selection of research methods

D. Funding sources

The physical setting of the study is a significant context that can influence findings in qualitative research because it shapes the environment in which participants interact and provide data. The ambiance, location, and social dynamics present in the physical setting can affect how participants respond and behave during the research process. For example, conducting interviews in a familiar and comfortable setting may encourage more open and honest communication, whereas a sterile or intimidating environment might inhibit sharing or lead to socially desirable responses instead of genuine ones. In qualitative research, where the goal is to understand participants' experiences, perceptions, and meanings, the setting can greatly impact the data collected. It can influence participant engagement, the nature of discussions, and even the interpretations researchers draw from the findings. Recognizing the nuances of the physical setting is critical for researchers aiming to capture authentic insights from their subjects.

7. Control in the context of research is best defined as:

A. Inducing random variations

B. Manipulating the dependent variable

C. Maintaining consistency across study conditions

D. Ensuring large sample sizes

Control in research refers to the efforts made by researchers to keep all aspects of the study consistent and stable across different conditions or groups. This is essential for minimizing the influence of extraneous variables that could skew results and lead to uncertainty in the findings. By maintaining consistency, researchers can be more confident that any observed effects can be attributed to the independent variable rather than to outside factors or random fluctuations. In the context of an experiment, control means having a structured environment where all variables are accounted for, except the one being tested. For instance, if a study is examining the effectiveness of a new medication, controlling means ensuring that all participants are subjected to the same conditions—such as the same amount of sleep, diet, and environmental factors—so that the results can truly reflect the medication's impact. This ultimately enhances the validity and reliability of the research conclusions. While aspects like random variations, manipulating dependent variables, and large sample sizes are important in research design, they do not inherently ensure that the conditions of the study remain consistently applied across different groups or treatment conditions. Ultimately, the essence of control lies in the rigorous maintenance of study parameters to draw clear, accurate conclusions.

8. How is the Kuder-Richardson (KR-20) coefficient expressed?

A. As a percentage out of 100

B. As an integer between 1 and 10

C. As a ratio of error variance to true variance

D. As a coefficient between 0 and 1

The Kuder-Richardson (KR-20) coefficient is expressed as a coefficient between 0 and 1. This measure is used to assess the internal consistency reliability of tests that have dichotomous choices, such as true/false or yes/no questions. A KR-20 value of 0 indicates no internal consistency, while a value of 1 reflects perfect internal consistency among the items on the test. This range between 0 and 1 allows researchers and practitioners to easily interpret the reliability of their measurements. Higher values indicate greater reliability, while lower values suggest that the items may not be measuring the same underlying construct consistently. Understanding this coefficient is crucial in nursing research, as it informs the quality of instruments used to measure patient outcomes, knowledge, and attitudes, thereby impacting the validity of research findings and clinical decisions.

9. What effect might a celebrity's cancer diagnosis have on a research study regarding mammograms?

A. Maturation

B. History

C. Reactivity

D. Experimenter bias

The effect of a celebrity's cancer diagnosis on a research study regarding mammograms is best categorized as history. This term refers to events occurring outside of the study that can influence participants' perceptions or behaviors. A celebrity's diagnosis can lead to heightened awareness and changes in public attitudes toward cancer screenings, such as mammograms. As people may be more motivated to get screened or discuss their experiences in light of this high-profile situation, it can introduce variability in the study results that is unrelated to the actual effectiveness of mammograms themselves. Maturation refers to natural changes that occur over time within participants, while reactivity involves participants altering their behavior because they are part of a study. Experimenter bias pertains to researchers influencing outcomes based on their expectations. These concepts do not directly relate to the impact of an external event, like a celebrity's diagnosis, on participant behavior regarding screening practices.

10. What is the impact of maturation on internal validity?

A. It refers to systematic data collection procedures

B. It includes developmental changes within participants

C. It ensures random assignment of subjects

D. It assesses the credibility of the study

The impact of maturation on internal validity relates directly to developmental changes that occur naturally over time within the participants in a study. Maturation refers to the physiological and psychological changes that all individuals undergo as they age. These changes can influence the outcomes of a study, especially in longitudinal research where participants are assessed over an extended period. If maturation effects are not properly controlled or accounted for, they can introduce confounding variables that may affect the results. For instance, if a study measures cognitive function in children over several years, any improvements seen could be simply due to normal developmental processes rather than the intervention being tested. Recognizing maturation as a potential threat to internal validity is crucial for researchers, as it means that conclusions drawn from the study may not accurately reflect the effects of the intervention being studied, but rather, changes that would have occurred regardless of participation in the study. In this way, understanding maturation's influence is key to ensuring that the findings are genuinely reflective of the study's objectives.