

**UNIVERSITY OF SWAZILAND**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF MIDWIFERY SCIENCE**

**FINAL EXAMINATION: MAY 2015**

**COURSE TITLE: APPLIED RESEARCH AND EVIDENCE-BASED PRACTICE**

**COURSE CODE: MWF 452**

**TIME ALLOCATED: 2 HOURS**

**MARKS ALLOCATED: 75**

**INSTRUCTIONS:**

- 1. PLEASE ANSWER ALL QUESTIONS**
  - i) SECTION A: MULTIPLE CHOICE [25 MARKS]**
  - ii) SECTION B: MATCHING [5 MARKS]**
  - iii) SECTION C: TRUE/FALSE [5 MARKS]**
  - iv) SECTION D: SHORT ANSWERS [40 MARKS]**
  
- 2. USE THE PROVIDED ANSWER SHEET FOR ALL YOUR ANSWERS**
  
- 3. CHECK THAT YOUR QUESTION PAPER HAS 10 PRINTED PAGES**
  
- 4. DO NOT OPEN THE QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR**

## SECTION A: Multiple Choice Questions

For each of the following questions, write clearly the question number and letter that correspond with the most appropriate answer e.g. 1. D

1. Which one of the following methods of acquiring knowledge is the most preferred for generating new midwifery and nursing knowledge?
  - A. Intuition
  - B. Disciplined research
  - C. Assembled information
  - D. Logical reasoning
  
2. Which one of the following research designs is ideal for establishing a causal relationship between an exposure and outcome?
  - A. Cross-sectional study
  - B. Prospective cohort study
  - C. Randomized control trial
  - D. None of the above
  
3. Which one of the following is the first journal to publish nursing research studies?
  - A. Florence Nightingale's notes
  - B. American Journal of Nurses
  - C. Nursing Research Journal
  - D. American Journal of Nursing
  
4. All the following are members of the research team, **except**:
  - A. The statistician who was involved from the planning of the study and will be involved up until publication of the study
  - B. Principal investigator
  - C. The co-investigators
  - D. The participants or study subjects
  
5. Which of the following statements is **not true** about nursing and midwifery research?
  - A. The researcher is actively involved in acquiring information for which there is generally accepted evidence
  - B. Is systematic and diligent
  - C. There should be a purpose (direction)
  - D. Applies the scientific method

6. Quantitative researchers \_\_\_\_\_
- A. Use deductive reasoning to study concepts in their research studies
  - B. Use inductive reasoning to understand the patterns of behavior in a society
  - C. Seek subjectivity rather than objectivity
  - D. Both A and C
7. All the following can be sources of nursing research problems, **except**:
- A. Ethical dilemmas
  - B. Interaction with peers
  - C. Research priorities or research agenda
  - D. Intuition
8. A post-diploma midwifery student wants to identify factors associated with the utilization of antenatal care services among women at a community where she has just been deployed. She then designs a questionnaire for the women to complete. This is characteristic of which research approach?
- A. Phenomenological research
  - B. Qualitative research
  - C. Experimental research
  - D. Quantitative research
9. The Ministry of Health and its partners seek to establish the presence of a causal relationship between the use of oral contraceptives and development of ovarian cancer among women of child-bearing age in Swaziland. Which study design would you recommend as the most ideal to answer the question?
- A. A qualitative research approach
  - B. A cross-sectional study
  - C. A randomized control trial
  - D. None of the above
10. In the near future, nursing research will focus on the following aspects, **except**:
- A. Less emphasis on systematic reviews
  - B. Expanded local research in healthcare settings
  - C. Expanded dissemination of research findings
  - D. Increased focus on cultural issues
11. Which of the following research approaches seek to study patterns of behaviour rather than seeking generalizability of findings?
- A. Quantitative research
  - B. Mixed-methods research
  - C. Qualitative research
  - D. Any of the above

12. All the following can be purposes of evidence-based practice, **except**:
- A. Increasing the base of nursing and midwifery knowledge
  - B. Doing the right thing, at the right time, and for the right person
  - C. Ensuring quality care for the individual client
  - D. Evaluating ideas, practices and previous events, and applying the learning achieved to future practice

**Questions 13-16 refer to the following situation.** A researcher wishes to conduct a study whose purpose is to explore and describe whether maternal nutritional diet is associated with the baby's birth-weight among 18-49 years old women delivering at the Mbabane Government Hospital.

13. The independent variable in this study is \_\_\_\_\_ -:
- A. Mbabane Government Hospital
  - B. Maternal Nutritional diet
  - C. Baby's Birth-weight
  - D. 18-19 years old women
14. The dependent variable in this study is \_\_\_\_\_.
- A. Delivering at the Mbabane Government Hospital
  - B. Baby's birth-weight
  - C. 18-49 years old women
  - D. Maternal nutritional diet
15. In such studies, the purpose of the study \_\_\_\_\_
- A. Is also the research problem
  - B. Is also the secondary objective of the study
  - C. Is also the goal or aim of the study
  - D. Both A and C
16. In your opinion, what would be the best research approach to answer the research question in this study?
- A. Qualitative approach
  - B. Phenomenological research
  - C. Quantitative approach
  - D. Philosophical study
17. A study may be replicated \_\_\_\_\_:
- A. to penalize earlier researchers
  - B. to validate the methods used in the study
  - C. for cosmetic purposes
  - D. All of the above

18. The outcome variable in a study is also known as the \_\_\_\_\_
- A. The dependent variable
  - B. Exposure variable
  - C. The criterion variable
  - D. Both A and C
19. When reviewing the literature for a study, which of the following is/are **not** considered scholarly databases?
- A. WHO HINARI
  - B. Google scholar
  - C. Wikipedia
  - D. Both A and C
20. Which one of the following provides the weakest research evidence?
- A. Ecological study
  - B. Cross-sectional study
  - C. Case-control study
  - D. Randomized control trial
21. All the following are types of qualitative study designs, **except**:
- A. Ethnographic study
  - B. Cross-sectional study
  - C. Phenomenological study
  - D. Both A and C
22. Which one of the following is **not** a feature of experimental study designs?
- A. Randomization
  - B. Convenience sampling
  - C. Manipulation
  - D. Control
23. All the following are steps of the process of evidence-based practice, **except**:
- A. Asking practice-focused questions
  - B. Searching and identifying the potential evidence
  - C. Evaluate the quality of evidence and decide what is best evidence
  - D. Developing a research proposal

24. A midwife is confronted with several cases of women living around a village with a history of asbestos mining, complaining of chronic obstructive pulmonary disease (COPD). She decides to find out what might be the cause of the disease among these women. Which one of the following study design would be most ideal?
- A. Cross-sectional study
  - B. Retrospective cohort study
  - C. Experimental study
  - D. Prospective cohort study
25. Recently, at the RFM hospital, anesthetists have stopped administering anesthetics to post-abortion clients during dilation and curettage (evacuation) procedures. One of the clients asks you why this is the case. How best would you answer this question?
- A. By reviewing findings from an experimental study done to establish this practice
  - B. By reviewing findings from a cross-sectional study determining the associations between variables
  - C. By reviewing findings from systematic reviews and meta-analysis on the subject that the client has raised
  - D. By doing a cohort study among all the post-abortion clients in the hospital to answer the question

**[Total: 25 marks]**

## SECTION B: MATCHING

In your answer sheet, write only the letter next to the corresponding question number e.g. 36. E

A. Study site; B. Study setting; C. Meta-analysis; D. Quantitative research; E. Qualitative research; F. Inductive reasoning; G. Deductive reasoning; H. Confounding; I. Systematic reviews

26. \_\_\_\_\_ may lead to erroneous conclusions since it depends on the truthfulness of the general principle
27. There is tight control over the context of what is being studied
28. Findings are the creation of an interactive process
29. The knowledge or conclusion arrived at depends on the representativeness of the observed smaller group
30. The specific place where data collection will occur

[Total: 5 marks]

## SECTION C: True/False

In your answer sheet, for each of the following statements, write only "T" for true or "F" for false next to each question number, e.g. 37. T

31. The larger the sample size in a quantitative study, the more generalizable the findings are.
32. When the independent variable causes the dependent variable, the relationship is a functional or associative relationship
33. The conceptual definitions of a study should state exactly how the concepts are defined in existing literature
34. In experimental studies, simple random sampling can replace randomization
35. Disciplined research is the most sophisticated method of acquiring evidence and tends to be unreliable than other methods of knowledge acquisition

[Total: 5 marks]

## SECTION C: SHORT ANSWERS

### Question 1

Define the following concepts/terms used in nursing and midwifery research:

- a) Bias
- b) Triangulation
- c) Evidence-Based Practice

**[Total: 3 marks]**

### Question 2

Ruth, one of your classmates, plans to enroll for an Honors Degree next year. As a budding researcher, she needs advice and guidance on how to go about conducting her study. How would you respond to the following questions?

- a) Explain any five (5) purposes of conducting a literature review for a study, like Ruth's [5]
- b) Mention five (5) potential sources of bias that can occur in her study, just like they may occur in any study. [5]
- c) You explain to Ruth some of the challenges researchers encounter when conducting studies. Describe any five (5) of these challenges. [10]

**[Total: 20 marks]**



### Question 3

Read the following text and answer the questions that follow:

Eileen A. Yam, E.A., Mnisi, Z., Sithole, B., Kennedy, C., Kerrigan, D.L. Tsui, A.O., & Baral (2013). **Association between condom use and use of other contraceptive methods among female sex workers in Swaziland: A relationship-level analysis of condom and contraceptive use**, *Sexually Transmitted Diseases*, 40(5): 406-412

“Nonbarrier modern contraceptive users often are less likely to use condoms, particularly with more intimate sex partners. We examined whether female sex workers (FSWs) in Swaziland who use nonbarrier contraception, use condoms less consistently, and whether this inverse association varies by relationship type...We also tested whether relationship type modified the effect of nonbarrier modern contraception on condom use...We controlled for age, education level, income and place of residence...We found no significant association between condom use and nonbarrier modern contraceptive use... Compared with new clients, FSWs were less likely to use condoms consistently with regular clients or with noncommercial partners. Those who had experienced condom failure in the past month were less likely to use condoms consistently compared with those who did not report condom failures...However, there was also no significant effect modification between use of non-barrier methods and relationship type.”

- a) What was the aim of this study? [1]
- b) Name each of the following variables from this study:
- i) Independent variable
  - ii) Dependent variable
  - iii) Any Confounder
  - iv) Modifying or moderating variable [4]
- c) Draw associative bonds showing these relationships:
- i) Moderation
  - ii) Confounding [3]
- d) Was this a quantitative or qualitative study? Justify your answer [2]

- e) Assuming you are the program officer, working with commercial sex workers, in the Sexual Reproductive Health unit of the Ministry of Health, and you come across this paper, what one (1) recommendation would you suggest for programs? [2]
- f) Describe any five (5) barriers towards the utilization of research findings and evidence-based practice by nurses and midwives? [5]

**[Total: 17 marks]**