

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

**FINAL EXAMINATION: MAY 2016**

**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
2. USE THE PROVIDED ANSWER BOOKLET FOR ALL YOUR ANSWERS
3. START ALL QUESTIONS IN A NEW PAGE
4. USE BULLETS FOR EACH POINT IN YOUR ANSWERS (DO NOT INVENT YOUR OWN NUMBERING)
5. CHECK THAT YOUR QUESTION PAPER HAS 5 PRINTED PAGES
6. DO NOT OPEN THE QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR

**QUESTION 1: Multiple Choice Questions**

**For each of the following questions, write clearly the question number and letter that corresponds with the most appropriate answer e.g. 1.11 D. There is only one correct answer for every question.**

- 1.1 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
- 1.2 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
- 1.3 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

1.4 The outcome variable in a study is also known as the \_\_\_\_\_

- A. dependent variable
- B. exposure
- C. mediator
- D. Moderator

1.5 Recently, at the RFM hospital, anesthetists have stopped administering anesthesia 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

**For each of the following statements, in your answer sheet, write only "T" for True or "F" for False next to each question number, e.g. 1.12 T**

1.6 The larger the sample size in a quantitative study, the less generalizable the findings are.

1.7 When the independent variable is associated with the dependent variable, the relationship is known as a causal relationship

1.8 In randomized control trials, simple random sampling can replace randomization

1.9 In research, the study site is the specific place where data collection will occur

1.10 In epidemiological research, causation always warrants association

**[Total: 10 marks]**

## QUESTION 2

Muzi, a 4<sup>th</sup> year midwifery student, is expected to conduct a study as part of his partial fulfillment for the requirements of the Bachelor of Nursing Science. He is proposing a study titled: **“The relationship between maternal nutritional diet and the baby’s birth-weight among 18-49 years old women delivering at the Mbabane Government Hospital”**. He also plans to test if this relationship varies by socio-economic status of the mother. He has read from literature that maternal level of education, HIV status, mothers age, antenatal care attendance, are some of the factors related to the baby’s birth-weight among mothers. However, as a budding researcher, he needs advice and guidance.

- a) Explain the characteristics of research which can help him to know if what he is about to engage in is actually research or not [5]
- b) Explain the purpose of conducting a literature review related to his study topic before he embarks on his research project [6]
- c) State the following in Muzi’s proposed study:
  - i. Independent variable(s) [1]
  - ii. Dependent variable(s) [1]
  - iii. Moderating variable(s) [1]
  - iv. Confounder(s) [2]
- d) Is Muzi’s study quantitative or qualitative? Justify your answer. [2]
- e) Suggest the most suitable study design for Muzi to use in his study. Justify why the design you have suggested is appropriate to answer his research question. [2]
- f) Describe five (5) potential sources of bias that he must try to avoid in his study. [10]

[Total: 30 marks]

### QUESTION 3

After your graduation, the Chief Nursing Officer deploys you at the Mbabane Government Hospital Maternity ward. As soon as you arrive, you notice that the unit currently has a high prevalence of women who develop perineal tears during childbirth. The Sister-in-Charge is aware that you took the Applied Research and Evidence-Based Practice course during your training, and therefore asks you to lead a task-team that will gather current evidence-based practices regarding preventing perineal tears among women who have normal vaginal births.

- a) Define the term, “evidence-based practice” [1]
- b) State the three (3) key components of evidence-based practice you will incorporate when implementing preventive measures toward the perineal tears in your unit? [3]
- c) Explain the five (5) steps you will follow when implementing the evidence-based practices you would have gathered from literature on preventing perineal tears. [5]
- d) While gathering the evidence, discuss what aspects of a systematic review article you would critically consider, in order to determine if it is ‘good’ evidence or not. (In short, discuss how you would critically appraise a systematic review). [11]
- e) In one of your meetings with your task-team members, a colleague tells you that she has read a recent journal article which stated that utilization of research findings and evidence-based practice is very low among nurses and midwives.
  - i. Describe five (5) reasons why there is underutilization of research findings by midwives. [10]
  - ii. For each of the barriers identified in i) above, explain one measure you can recommend in order to overcome it. [5]

[Total: 35 marks]