

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

FINAL EXAMINATION: MAY 2018

COURSE TITLE: APPLIED RESEARCH AND EVIDENCE-BASED PRACTICE

COURSE CODE: MWF 452

TIME ALLOCATED: 2 HOURS

MARKS ALLOCATED: 75

INSTRUCTIONS:

- 1. ANSWER ALL QUESTIONS**
- 2. USE THE PROVIDED ANSWER BOOKLET FOR ALL YOUR ANSWERS**
- 3. START ALL QUESTIONS ON A NEW PAGE**
- 4. USE BULLETS FOR EACH POINT IN YOUR ANSWERS (DO NOT INVENT YOUR OWN NUMBERING)**
- 5. FIGURES IN BRACKETS INDICATE MARKS ALLOCATED TO EACH QUESTION OR PART OF A QUESTION**
- 6. CHECK THAT YOUR QUESTION PAPER HAS 6 PRINTED PAGES**
- 7. DO NOT OPEN THE QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR**

QUESTION 1

- 1.1 From the table below, choose the most appropriate word or phrase that matches each of the statements below. Each of the phrases or words can be used once, more than once, or not at all. In your answer booklet, only write the question number and the corresponding letter as an answer e.g. 1.18 Q. [17]

A. External validity	B. Internal validity
C. Bias	D. Research design
E. Research control	F. Experimental group
G. Operational definition	H. Study site
I. Control group	J. Pilot study
K. Random sampling	L. Randomization
M. Triangulation	N. Study setting
O. Conceptual definition	P. Peer review

- 1.1.1 The specific place where data collection will take place
- 1.1.2 A situation whereby each of the participants has an equal chance for selection to participate in the study
- 1.1.3 Holding constant other influences on the dependent variable so that the true relationship between the independent and dependent variables can be understood.
- 1.1.4 A small, preliminary study to test the feasibility of the proposed study methods or materials
- 1.1.5 The degree to which the researchers followed the correct methods of conducting the study such that the credibility of the results is guaranteed
- 1.1.6 The degree to which the study results can be applied to a larger population
- 1.1.7 Any influence that produces a distortion in the study results that can threaten the study's validity and trustworthiness

- 1.1.8 Presents the abstract or theoretical meaning of the concepts being studied, based on theoretical formulations, or on a firm understanding of relevant literature,
 - 1.1.9 The use of multiple sources or methods/tools to draw conclusions about what constitutes the truth in a study
 - 1.1.10 Group that receives the treatment in a study
 - 1.1.11 The overall place where the study will be conducted, e.g. a community or hospital
 - 1.1.12 Comparison group
 - 1.1.13 An all-encompassing term for the overall plan to answer the research question, including the method and specific plans to control other factors that could influence the results of the study
 - 1.1.14 A situation whereby each of the participants has an equal chance for being assigned to the control or intervention group
 - 1.1.15 Indicates how the variables will be measured or defined in a study
 - 1.1.16 A process whereby experts in the field are called on to critique various aspects of a study and offer feedback
 - 1.1.17 Refers to the generalizability of the study findings
- 1.2 Using the PICO format, for each of the following, identify the four components of clinical questions:
- 1.2.1 Is a group intervention for parents and children more effective than routine care for weight loss in obese school-age children? [4]
 - 1.2.2 What are the experiences of women after caesarian section? [4]

[Total: 25 marks]

QUESTION 2

Read the following information from a journal article and answer the questions that follow.

Mluleki Tsawe¹, Amos Moto², Thendo Netshivhera³, Lesego Ralesego⁴, Cassandra Nyathi⁴ and Sathiya A.Susuman^{5*}

International Journal for Equity in Health (2015) 14:32. DOI 10.1186/s12939-015-0162-2

Background: *Maternal and child healthcare services are very important for the health outcomes of the mother and that of the child and in ensuring that both maternal and child deaths are prevented. We examined the factors that influence the use of maternal healthcare services and childhood immunization in Swaziland.*

Methods: *Our study used secondary data from the Swaziland Demographic and Health Survey 2006–07. This was an exploratory and descriptive study which used pre-selected variables ... For the multivariate analysis, a logistic regression was run to investigate the relationship between the dependent and independent variables.*

- 2.1 The text above is from the article's abstract. Explain what an abstract is. [2]
- 2.2 Define the term "principal investigator" and state who would you say is the principal investigator in this study. [2]
- 2.3 Define the term "corresponding author" and state who the corresponding author in this article is. [3]
- 2.4 You may have noticed that next to each of the authors' names, there are superscripts of numbers. Explain the meaning or significance of these superscript numbers. [2]

- 2.5 State the aim of this study. [1]
- 2.6 In your opinion, was this a qualitative or quantitative study? Give two supporting statements to justify your answer. [3]
- 2.7 In the methods section, the authors state that the study used secondary data. What do you understand by that? [2]
- 2.8 The authors state that the study used pre-selected variables. Define what a variable is. [2]
- 2.9 What was the data source for this study? [1]
- 2.10 The authors state that they ran logistic regression to investigate the relationship between the dependent and independent variables.
- 2.10.1 Define “independent variable”. [1]
- 2.10.2 Define “dependent variable”. [1]
- 2.10.3 State the independent variable(s) for this study, if there are any. [1]
- 2.10.4 State the dependent variable(s) for this study, if there are any. [2]
- 2.10.5 State the confounding variable(s), if there are any. [1]
- 2.11 State which of the following statements is most correct about the position of Sathiya A. Susuman in the authorship list. [1]
- A. S/he is the principal investigator.
 - B. S/he is the least experienced author.
 - C. S/he contributed the least information in this study.
 - D. S/he might be the most senior or most experienced in the group.

[Total: 25 marks]

QUESTION 3

Upon graduating, you are deployed at the Mbabane Government Maternity ward. As soon as you arrive, you notice that the unit currently has a high incidence of woman developing perineal tears during childbirth. The sister-in-charge is aware that you have taken the Applied Research and Evidence-Based course, and therefore asks you to search for a systematic review article regarding preventing perineal tears during the second stage of labour, in order to come-up with the best evidence-based practice for the ward.

3.1 Define the terms:

3.1.1 Evidence-based practice [2]

3.1.2 Systematic review [2]

3.2 When searching for the evidence, explain two (2) features that are characteristic of systematic review articles that will convince you that the article you have identified is a systematic review. [2]

3.3 Explain the aspects that a midwife should critically consider when reading a systematic review article, in order to determine if it is 'good' evidence or not (critical appraisal of a systematic review). [11]

3.4 Once you have gathered the evidence, explain the three (3) key components of evidence-based practice that you must consider before implementing it in the ward. [3]

3.5 Explain five (5) steps you will follow while implementing the evidence-based practice you identified in literature. [5]

[Total: 25 marks]