

Scope of Practice and Clinical Competences of Nurses/Midwives Working in Maternity and Their Association with Maternal Outcomes. A Proposal for Research

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Abstract: Developing countries account for 99% of the 830 preventable pregnancy related deaths. The deaths occur mostly in rural and poor communities not affording skilled attendance Zimbabwe significantly contributes to these global rates with a Maternal Mortality Ratio of 651/100 000 live births of which 47% are avoidable deaths, despite increasing institutional delivery and skilled attendance. Competent midwives working in a clear scope of practice can make the difference. The purpose of this study is to explore the perception of the nurses/midwives regarding their scope of practice, clinical competences and their association with maternal outcomes in Mashonaland east province of Zimbabwe. The exploratory mixed method will be utilised. Focus group discussions with practising midwives and in-depth interviews with Key nursing/ midwifery leaders from Nurses/ midwifery associations, Ministry of Health and Nurses Council of Zimbabwe will be conducted. Clinical competence will be assessed using a clinical competence scale adapted from Benner's Novice to Expert framework. All eligible midwives will be recruited for the study. Data will be analysed using SPSS version 20 and NVIVO. Descriptive statistics will be used for demographics and clinical competence levels. Inferential statistics will be used to examine relationship between competence levels and occurrence of maternal adverse outcomes. Qualitative data will be transcribed and themes identified.

Keywords: maternal adverse outcomes, clinical competence, scope of practice, midwives.

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I. Introduction

Pregnancy and childbirth is viewed as a source of joy in many cultures, though to some it is viewed as a death trap. Many women are dying from pregnancy related complications worldwide with 99% occurring in rural poor communities within developing countries. [1] Most are said to be preventable if effective management of the complications during and immediately after birth are effectively managed. [2] Zimbabwe is among the top countries contributing significantly to the global rates with a Maternal mortality Ratio of 651/100000 live births and 47% preventable cases. [3]

Evidence indicates that if pregnant women are attended by competent midwives or skilled birth attendants working within their clearly defined scope of practice deaths can be reduced by nearly two thirds. [4; 5] Zimbabwe has experienced an increase in institutional births and skilled attendance which has yielded a positive reduction of maternal mortality. [6] Skilled attendance refers to doctors, nurses and midwives with midwifery skills. [7]

Midwifery practice is similar globally though they vary in educational preparation they are expected to have a clearly defined Scope of practice in line with practice setting, national regulation and in line with the definition of a midwife. [8] It is critical for maternity care to take cognizant of the personal and organisational factors if meaningful reduction of maternal mortality needs to be achieved. Organisational factors includes key stakeholders support and leadership capacity [9] while personal factors includes individual's ability to recognize their own competence levels and factors beyond their control such as pre-defined protocols, patients 'dynamic needs and wishes of other key players in health including doctors. [10] Failure to consider these factors may result in practitioner taking up roles beyond own competences and placing patients 'life at risk. [11] Competence assessment therefore becomes critical aspect in decision making about health care providers SOP especially maternity care.

Competency refers to application of knowledge skills and behaviours needed to fulfil work area requirements in real life. [12] Nurses and midwives are deemed competent when they have acquired all the

expected competencies as per set standard judged appropriate for the level of performance being assessed. [13] In this study the level of performance is antenatal care, labour and delivery care and postpartum and neonatal care against the international basic essential midwifery competences [13] and Benner's Novice to expert clinical competence scale. [14] In the belief that "competence development is not an event but a process", which is influenced by the environment. This study aims to explore the nurses and midwives perception of their current SOP and clinical competence levels, as well as determining its association with maternal outcomes in the Zimbabwean setting. It is hoped the findings will form the bases for developing a midwifery SOP framework which fosters positive migration in the competence development continuum and attainment of sustainable development goal 3.

II. Materials and methods

1.1 Design

The study will utilise an equal weighting mixed method design. Both qualitative and quantitative methods will be used. The quantitative phase will be a longitudinal cross sectional study assessing clinical competence levels, maternal outcomes and then determine association between competence levels and maternal outcomes. The qualitative phase will explore the nurses, midwives and key stakeholders' perception of the current SOP. Quantitative data will be obtained from a complete sample of nurses and midwives working in maternity and maternal outcomes from the same selected sites. Qualitative data will be obtained from in-depth interviews with a stratified purposive sample of key nursing leaders of various organisation and focus group discussions with at least 30 hands on midwives within the province. The design will yield data which enhance understanding of the phenomena under study and the association between variables.

1.2 Setting

The study will be conducted in Mashonaland East Province of Zimbabwe. Five districts and the provincial hospital were selected on the basis of maternal mortality rates. In each district all stratified sample of institutions with maternity units will be utilised as study sites. The district hospitals, rural hospitals and private/mission hospitals and poly clinics within the districts will make up the sites. Marondera provincial hospital reported the highest mortality since it is the referral centre within the province. Mutoko and Murewa had the highest maternal mortality while Goromonzi, Mudzi and Uzumba Maramba Pfungwe districts reported no mortality during the same period.

1.3 Study variables

The midwifery Scope of Practice, clinical competence levels and the maternal outcomes are the study variables under study.

1.4 Instruments

A clinical competence scale will be used to for midwife self-assessment and supervisor rating of clinical competence levels. The scale consists of a demographic section for capturing age, level of qualification and years of experience in maternity care. Section B consists of essential competences from antenatal care, labour/delivery and postpartum care up to six weeks. The rating scale ranges from 1-5 and scoring will be done on this section. A maternal outcome checklist to capture information from record reviews. A structured interview guide and Focus group guide will be used to guide the interview and group discussions with midwives on their views and opinions regarding SOP.

1.5 Ethical consideration

All ethical principles will be followed during and after the study. All participants give voluntary and informed consent. They will be informed of absence of direct benefits and any physical or mental harm during the participation period. No threats to their jobs or job positions. Confidentiality and privacy will be ensured by use of sealed envelopes, use of identity codes instead of actual identities and all information will be kept under lock and key. Access is reserved for research purpose only.

Permission will be sought from heads of study sites, Provincial Medical director, local ethical review boards and Medical Research Council of Zimbabwe. Research assistance will be trained to avoid undue discomforts. Participants requested to travel from their work stations will have their transport cost reimbursed to cover their expenses and appreciate their efforts. Termination of study will be done when sample size is reached.

1.6 Procedure

Participants will be recruited into the study on first contact with research. Nature of study will be explained and written informed consent will be obtained. The self-rating scale will be given and a code will be assigned to the individual and written on the supervisor form. Self-sealing envelopes are given to both participant and supervisor for returning completed forms. Blinding will be used to minimise bias. The maternal checklist is given to the assistant to record maternal outcomes the period under study. Practising midwives are then conveniently selected from same sites to participate in Focus group discussions. 8-12 participants are expected in each focus group discussion. A total of 3 sessions will be conducted. The discussions will be audio recorded and notes taken during discussion to ensure validity of captured data. These lasts 30 minutes to an hour

until all ideas are exhausted. Key nursing informants will be interviewed following scheduled appointments with the researcher. The interviews will last 10-30minutes and audio-recording is also done.

1.7 Data Analysis

Data will be coded and analysed using SPSS version 20 software. Descriptive statistics will be used for quantitative data. Pearson correlation and regression analysis will be used to examine association between competence levels and maternal outcomes. Data will then be presented in frequency tables and charts. Recorded interviews and discussions will be transcribed using NVIVO software; thematic analysis of transcripts will be done to identify themes. Qualitative data and quantitative data will then be triangulated.

III. Results

Results will be discussed according to variables under study and appropriate recommendations and conclusions drawn. It is hoped that the results will inform design of a Scope of Practice Framework which foster positive migration along the competence development continuum and improved maternal outcomes. The results will also help in coming up with an appropriate intervention which enhances attainment of Sustainable development Goal 3 by 2030.

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