

## Evidence based practice in midwifery: concept paper

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### ABSTRACT

*Midwifery practice should be informed by sound scientific based enquiry which should serve as the foundation for decision making and policy making for improved maternal neonatal outcome.*

#### **Objective**

*The objective of this paper was to describe the concept evidence based practice in order to clarify its meaning among nurse midwives by assigning antecedents and attributes.*

#### **Methodology**

*Walker and Avant (2011) concept analysis model was used to guide this paper. The following search engines were utilized to select 10 articles relevant to the concept of interest, Google Scholar, PubMed, and Medline*

#### **Results**

*Evidence based practice is not clearly understood to what it entails. Midwifery practice at some point lacks reference based on rigorous scientific enquiry thus leading to detrimental neonatal maternal outcome.*

#### **Conclusion**

*There is need to clarify what evidence based practice mean so as to guide midwifery practice.*

**Keywords:** *evidence based ,practice , competency ,midwifery*

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### Introduction and background

Evidence based practice has been introduced to the health care practice for the last decades (Newhouse et al., 2007) and this concurs to Isabelle et al., (2005) who also is of the opinion that evidence based practice is the buzz phrase of the decade .Globally governments have embraced evidence based practice with development of initiatives to advance the provision of

health care based on the best evidence rather than on tradition (Parahoo,2000,Restas 2000,Gladan and Chaney 2004).Evidence based practice has been formally introduced in 1992 though it started as evidence based medicine in the 1990s Naji, (2016). Melynk ,(2004) suggests that although a paradigm shift to evidence based practice is beginning to occur throughout the nursing profession in the united states this shift is slow often due to misperceptions about evidence based practice . In an era of great accountability of health professionals, this can be very beneficial Prior, Wilkinson and Neville,(2010). Unfortunately no standard formula exists for how much the factors should be weighed in the clinical decision making process.(nurses.com, 2018).Delivering quality care is the main goal for any health care Organization .Midwifery is a field of healthcare that specializes in treating women and children, before, during and immediately after pregnancy and labour Fraser et al.,(2003). Midwifery care is associated with high quality and is comparable or in some studies, better outcomes than care provided by obstetricians /gynecologist.

Continuous development in technology and research increase the complexity of midwifery requirements. And as a result, midwives should gain the knowledge of evidence-based practice (EBP) to increase their quality of care. The EBP is a result of integrating best research findings with clinical knowledge and patients' beliefs and values. Gomez, (2016) posits that EBP is endorsed by research and theory. The International Council of Nurses (ICN) identified EBP as a method of problem solving for clinical professions to center their decisions on caring for patients that includes recent evidence, clinical expertise, and assessment in midwifery care (ICN, 2012). The International Council of Nurses (ICN) has demonstrated a commitment to both nurses' active participation in nursing research (ICN, 2006) and the 'use of research to inform evidence-based practice.

Despite a surge of research over the past decades and availability of knowledge generated from such inquiry, only small percentage of health care providers are implementing evidence from research into practices Bostrom and Suter, (1993),Jolley,(2002 )in (McCrae, 2016).The ability to deliver EBP promotes individualization of care and assures the quality of care for patients today as well as tomorrow. McCrae, (2012) is of the opinion that legitimacy of any profession is built on its ability to generate and apply theory and despite efforts to improve its academic credentials the discipline lacks exoteric expertise. The measurement of competence in evidence-based practice (EBP) remains challenging to many educators and academics due to the lack of explicit competency criteria. Much uncertainty exists about what specific EBP competencies nurses should meet and how these should be measured Leung, Trevena, Waters, (2016). Evidence based practice is a very important concept in midwifery therefore it need to

be clearly defined and antecedents, attributes empirical reference and consequences to be outlined.

### **Problem statement**

Familiarity of this term (EBP) has impacted negatively on the objectivity and execution of midwifery services as it lacks scientific rigorous inquiry. Any evidence based midwifery practice should be anchored on a sound research enquiry

### **Objective**

The objective of this paper was to describe the concept evidence based practice in order to clarify its meaning among nurse midwives by assigning antecedents and attributes

### **Significance**

There will be standardization of midwifery care because there will be an authentic point of reference for monitoring and evaluation of care.

There will be accreditation of practice based on sound scientific knowledge.

It will empower the nurse midwife to have confidence based on sound scientific evidence.

It will also help in development of management protocols and policies

### **Literature search**

Literature search was done from 1 July to 30 July 2018 Walker and Avant, (2011) concept analysis model was used to guide this paper. The concept analysis steps included concept selection, purpose of the analysis, significance and use of the concept, determination of defining attributes, identification of the model case, additional cases, identification of antecedents and consequences, and definition of empirical reference.

The following search engines, Google Scholar, PubMed and Medline were utilized for literature search and 30 articles ranging from 2003 to 2018 were identified. The researcher settled for 10 Articles which were relevant to the concept of interest. The inclusion criteria for articles utilized was based on health articles on evidence based practice and related studies and reports

Author /year	Source	Definition	Antecedents	Attributes	Comments
Parohoo,( 2000)	Journal of advanced nursing	-	-	-	Did not define
Grol, (2003)	Lancet	-	-	-	
Foster (2004)	Journal for specialist in paediatrics nursing	-	-	-	
Shaneyfelt et al(2006)	journal of American medical association	-	-	-	-
Brown et all ,(2008)	Journal of advanced nursing	-	Knowledge Autonomy education	-	-
Stevens ,(2013)	Online journal of issues in nursing	-	Nil	Nil	
Laiban, 2014	International journal of nursing knowledge	A problem solving approach to clinical	Knowledge Competence Performance behavior	Nil	
Gomez, (2016)	Annal journal of nursing research and practice	-	knowledge	-	
McCrae (2012)	Journal of advanced nursing	-	-	-	
Naji (2016)	International journal of nursing and health	conscientious, explicit and judicious evidence in making decisions	Knowledge Competence Behaviour	-	-
Schaefer, Welton (2018)	Journal of nursing management	-	-	-	
Cluett ,(2006)	Principles and practice of research in midwifery	The conscientious, explicit, judicious use of the current best evidence in decision making about the care of individual patients.	knowledge	Policies Guideline research awareness	

## **Methodology**

The researchers used concept paper Walker and Avant 8 step concept analysis model (2011). Walker and Avant which include: 1. Choosing a concept, 2. Specification of the aims of the Analysis, 3. Identification of concept utilization, 4. Determination of defining attributes of the concept, 5. Development of a model case, 6. defining a borderline case with similarities and differences from the concept, 7 defining a contrary case 8. Defining antecedents and consequences and defining empirical reference.

## **Definition of evidence based practice**

The researcher's defined evidence based practice as holistic practice by a trained certified midwife based on valid, current, rigorous enquiry.

## **Antecedents**

Antecedents are the requisites for the concept to occur (Walker and Avant 2011). The antecedents for EBP to occur are outlined below:

Culture of research among midwives since evidence based practice base on research for its practice midwives would need to develop a culture of research in order to have quality care. Ryan, (2016) and Rolfe et al, (2013). also agree that a tradition of practice not supported by research based evidence may remain dormant. Gomez, (2016) is of the opinion that EBP nursing is endorsed by research.

Critical thinking midwives need to develop critical thinking as an antecedent towards EBP Rationalization midwives will be confident and be able to rationalize their activities. This was also supported by Prior, Wilkinson, Neville, (2010) who says that EBP can be beneficial in era of greater accountability in health care.

## **Attributes**

Attributes and critical characteristics are deduced from meaning of EBP above. Defining Attributes are the characteristics that keep on appearing (Walker and Avant, 2011). In this case it is the characteristics deemed necessary for EBP to occur.

## **Research**

Research should be part of certification for midwives meaning for a person to be a midwife they should have passed their research theory and practice as well as supported by Gomez (2016) who say EBP is endorsed by research and theory. Holmstrom and Lawson, (2005) agree that there should be clarification on what is known and what is not known to target further research. Midwifery core competency 19 suggest that midwifery educators cultivate a culture of supporting critical inquiry and evidence based practice and research is one of the midwifery educator core competencies.

## **Regulatory body**

There should be a regulating body like ICM, ZICOM, and NURSES' COUNCIL to regulate the midwifery practice. Regulation defines the profession and its members, determines scope of practice and set standards of education and ethical and competent practice and establishes

the system of accountability. Regulation is often associated with detailed procedures, rules, and controls, and over time it has come to be perceived in negative sense (Affara and Saif, 2016).

**Publication of research**

There should be publication of research by nurses for nurses to be utilized in their day to day nursing and midwifery care. Lack of midwifery research prior to that time required that midwives drew on their occupational experience to support their clinical decision making inevitably, Maybe nurses relied on medicine for a foundation of its knowledge –base that midwives were prepared to accept to accept this state of affairs(Allotey et al., 2012)

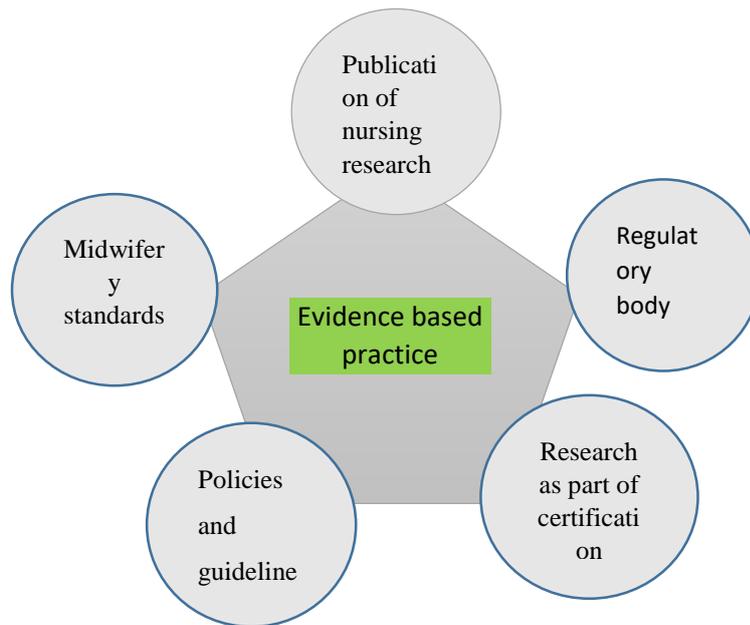
**Participation in research forums**

Midwives must participate in research forums and share research with other disciplines in forums such as the ECSACON.

**Guidelines and policies for standardization of care**

There is going to be development of guidelines and policies for standardization of care across midwives as supported by Holstrom and Larson, ( 2005).who suggest that guidelines enable consistent care across professional boundaries.

**Figure 1.**



**Discussion**

**EBP definitions**

Melnyk, (2005 ) defines EBP as a problem solving approach to clinical practice that integrates a systematic search for and critical appraisal of the most relevant evidence to answer a burning clinical question ,one’s own clinical expertise and patient preferences and value.

Integration of the best research evidence with clinical expertise and patient’s value .This definition does not include what clearly define what EBP is (IOM, 2001)

A problem solving approach to clinical decision making within a health care organization that integrates the best available scientific evidence with the best available scientific evidence with the best available experimental evidence, (Newhouse et al., 2007) .This definition is much better as it clearly says that it uses best available scientific evidence.

Sacket et al (1996), defines EBP as the conscientious, explicit and judicious use of the best evidence in making decisions about the care of individual patient, Cluett, (2006) uses Sacket et al.,(1996) definition. This definition is not accounting that it should be rigorous and current. According to studies published in numerous countries there is variability in nurses and midwives knowledge and use of EBP. This concurs with Gerrish et al., (2007 ) who posits that despite widespread calls for nursing to be evidence based ,there is lack of clarity regarding to the concept of evidence based practice .Melnik, (2004), suggests that although there has been a paradigm shift to evidence based practice is beginning to occur throughout the nursing profession in the united states the shift is slow often due to misperceptions about evidence based practice ,lack of its knowledge and skill and multiple barriers to it implementation, this concurs with Bahtservani et al.,(2005) who is of the opinion that many lack the knowledge ,skills and confidence to implement it effectively .this clearly shows that although it is there it needs clarity.

Some authors are of the opinion that evidence based practice is important for quality of care Heydari, (2014) suggests that EBP leads to quality of care, this concurs with Mehrdad et al., (2008) who also believes that it enhances quality of clinical practice based on international standards and (Ryan ,2016) who also believes that evidence based practice is an increasingly critical aspect of quality health care delivery, with nurses requiring skills in sourcing relevant information to guide the care they provide. Therefore many authors agree that it is best for quality care. Ryan, (2016) is of the opinion that a tradition of practice not supported by research based evidence may remain dormant. Koelin and Lehma, (2008) suggested that evidence based practice provides framework for promoting excellence in health care. Some authors are of the opinion that nursing practice rely on important foundation of research and EBP thus EBP utilization should be incorporated into practice Ryan, (2016) .

### **Model case;**

A model case provides an example of the use of the concept that demonstrates all the defining attributes of the concept, or a paradigmatic example (Walker & Avant, 2011).

The following example illustrates a model case for EBP in a remote rural health care setting

A model case is a case scenario with the crucial attributes of the concept under study evidence based practice.

A para 9 gravida 10 presents in labour at Makonde rural clinic and the nearest district hospital is 300km away after she had travelled by a canoe .On inspecting the abdomen nurse A suspects multiple pregnancy, abdomen is bigger than gestational age ? Multiple pregnancy? Polyhydramnios and from saucer depression? occipito posterior position .Upon palpation she identified 2 hard consistent structures which could be 2 heads. The leading twin she suspected a breech presentation and confirmed on vaginal examination. She also isolated 2 fetal heart rates .Nurse A observed to see if the breech is a frank breech, there is adequate clinical pelvimetry and that the fetus is not too large and that the patient did not have any previous caesarean section and prepared for a breech delivery uses the hands off the breech to deliver

the first twin. When buttocks have entered the vagina and the cervix is fully dilated she instructed the woman to bear down with contractions. The nurse let the buttocks deliver spontaneously until lower back and then shoulder blades are seen. The legs did not deliver spontaneously she delivered one leg at a time. The arms did not deliver spontaneously as they were stretched above the head she used the Lovset maneuver by holding the baby by hips and turning half a circle keeping the back upper most. She applied downward traction at the same time so that the posterior arm becomes anterior, and deliver the arm under the pubic arch by placing two fingers on the upper part of the arm, draws the arm down over the chest as the elbow is flexed, with hand sweeping over the face and does the same for the other arm.

The nurse delivered the head by Mauriceau Smellie Veit maneuver that is by laying the baby body face down over her hand and arm placed first and third finger on the baby's maxillae (cheekbones) and middle finger on the forehead and use the other hand to grasp the shoulders and gently flexed the baby's head towards the chest and applying downward pressure at the same time until hairline was visible and pulled gently to deliver the head. Raised the baby until the nose and mouth were free and placed the baby on the mother's abdomen thoroughly dried the baby and assessed breathing. Nurse A did not give oxytocin after delivery of first twin but rubbed up for a contraction. The second twin is delivered normal vertex delivery but the placenta is retained and she had to do manual removal of the placenta. She checked to see if the bladder was empty, held the umbilical cord with a clamp, pulled the cord gently until it was parallel to the floor. Placed the fingers of one hand into the vagina and uterine cavity following the direction of the cord until placenta was located. Moved the hand into the abdomen to support the fundus abdominally to prevent uterine inversion. Moved the fingers of the hand in the uterus laterally until the edge of the placenta is located ease the edge of hand gently between the placenta and uterine wall with palm facing the placenta and gradually move the hand back and forth in smooth lateral motion until the whole placenta is separated from the uterine wall. Palpated the inside of uterine cavity to make sure all placenta tissue has been removed slowly withdraw the arm bringing the placenta with it. She ensured that the placenta was complete and gave oxytocin 40 units 1 litre iv fluid at 60 drops /minute. She repaired all tears but the patient started to bleed profusely. There is uterine atony and woman has lost about 200mls of blood she uses 2 large bore cannulas to infuse volume expanders and uses uterine ligatures. She transported the client to nearest health Centre 300km away using a bike, on arrival at the district hospital the woman is taken to theatre and (post-partum hemorrhage) PPH is controlled. In this case the nurse did her best using all what she has been taught and using available resources in carrying out her duty diligently.

### **Borderline case**

A borderline case contains some of the crucial attributes but not all of them (Walker and Avant, 2011). Mrs Moyo para 2 gravida 3 is admitted into labour and has been booked meaning she knew what was expected of her in labour. Nurse C has been assigned to look after Mrs Moyo. Nurse C knows that she should use a partograph to monitor this woman in labour to avoid complications that can be prevented by careful monitoring but decided not to use it, but will plot it at the end of delivery. The laboring mother started to drain thick meconium stained liquor but did not alert the nurse C. The woman then screams and baby comes out as a flat baby and nurse C fails to help the baby breathe. In this case the client was booked meaning she was

taught some of the dangers of pregnancy but she failed to tell the nurse and also the nurse failed to perform her duties though she knew what she was supposed to do.

### **Contrary case**

A contrary case is one in which none of the defining attributes are met, or a case that is “not the concept”(Walker & Avant, 2011). For a contrary case of EBP competence, consider the following constructed example

Nurse B works at a remote rural health center she is faced with an unbooked para 4 gravida 5 who is in labour and the nearest district hospital is 200km away .The patient is very restless and difficult to monitor .Nurse B is also frustrated leaves the patient alone and she delivers a fresh still birth with cord around the neck on her on the floor .The nurse then shouts at the client the client is bleeding from the genital due to perineal tears .She has lost about 250mls of blood and the nurse does not act she concentrate on filling in the notification of death forms .The patient collapses and nurse B calls the hospital 250km away to bring ambulance .The ambulance reaches the rural health center the patient is very ill 2 large bore cannulas are inserted for plasma expanders the senior nurse from the hospital sutures the lacerations and takes the patient to the hospital.in this case the attributes were not met.

### **Empirical referents**

Empirical referents are processes by which the concept of EBP can be measured (Walker & Avant, 2011). As Walker and Avant (2011) noted, empirical referents may be identical to the defining attributes of the concept

Empirical referents are indicators or classes of the phenomena used to demonstrate the occurrence of the concept or measure the concept (Walker and Avant, 2011).

### **Consequences**

Consequences are the events occurring as a result of the concept. Consequences and attributes are similar.

Accountability if EBP is taken up midwives are going to be accountable of their actions and thereby provide the best quality of care.

Autonomy among midwives will increase and midwifery will become an autonomous body of knowledge. EBP can also lead to increased nurse confidence and performance, high quality care, increased patients outcomes and increased job satisfaction.(Newhouse et al ,2007)

Evidence based practice can also lead to a decreased cost associated with ineffective care and can also reduce geographical variability on provision of care Melnyk, Fineout and Overholt, (2010)

However If EBP is not utilized the midwives can be less empowered .This can also result in unstandardized care and people working haphazardly and maternal mortality and morbidity increases

### **Conclusion**

Health care systems need to implement interventions that not only increases EBP knowledge but also strengthen their beliefs about benefit of EBP.

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